

CHAPTER FOUR **ENVIRONMENTAL CONSEQUENCES**

4.1 Introduction

Chapter four addresses the known and anticipated direct, indirect, and cumulative impacts on elements of the human environment from implementing the proposed action, preferred alternative, or no action alternative described in chapter two of this draft EIS. The environmental elements affected by the alternatives under consideration are described in chapter three.

This chapter is organized by environmental elements, each of which includes a description and comparison of impacts from the relevant alternatives. Only those environmental elements determined to be potentially or significantly affected by the proposed action or alternatives—Recreation Resources, Threatened and Endangered Animal Species, BLM Sensitive Animal Species, Wild and Scenic Rivers, and Lands with Wilderness Characteristics—are herein addressed.¹

4.1.1 Summary of Alternatives

The alternatives identified for detailed study in chapter two of this draft EIS are summarized as follows:

- **Proposed Action** (proposed land exchange). Approval of this alternative would result in the transfer of certain public lands in Township 4 South, Range 4 East, and Township 5 South, Range 4 East, San Bernardino and Base Meridian—totaling approximately 5,799 acres or a portion thereof depending on appraised values—from the Bureau of Land Management to the Agua Caliente Band of Cahuilla Indians in exchange for Tribal lands in Township 5 South, Range 5 East, totaling approximately 1,470 acres. Three scenarios of the proposed action are analyzed in this chapter; each scenario describes different amounts of the selected public lands that may be exchanged for the offered Tribal lands depending on the outcome of the land value equalization process.
- **Preferred Alternative**. This alternative addresses an exchange of the same public and Tribal land parcels described for the proposed action, except that public lands in section 36, Township 4 South, Range 4 East, are eliminated from consideration. Approximately 5,292 acres or a portion thereof, depending on appraised values, would be transferred from the Bureau of Land Management to the Agua Caliente Band of Cahuilla Indians in exchange for approximately 1,470 acres of Tribal lands.

¹ One purpose of the scoping process conducted in March 2012 addressing the proposed land exchange was to determine the scope of issues to be addressed in this environmental impact statement and identify significant issues to be analyzed in depth (40 CFR § 1501.7(a)(2)). As described in chapters one and three, issues related only to Recreation Resources, Threatened and Endangered Animal Species, BLM Sensitive Animal Species, and Wild and Scenic Rivers would be so analyzed in chapter four. Issues and environmental effects related to other elements of the human environment are discussed in chapters one and three, including why these elements are not potentially or significantly affected and, therefore, not analyzed in depth in this chapter (40 CFR § 1501.7(a)(3)).

- No Action Alternative. This alternative provides for continued management of the selected public lands by the BLM—subject to applicable statutes, regulations, policies, and land use plans—and continued management of the offered Tribal lands by the Agua Caliente Band of Cahuilla Indians, subject to the Tribe’s Land Use Code, Indian Canyons Master Plan (ICMP), and Tribal Habitat Conservation Plan (THCP).

4.1.2 Possible Conflicts

This chapter of the draft EIS must also discuss possible conflicts between the proposed action and the objectives of federal, regional, state, tribal, and local land use plans, policies, and controls for the area concerned. Where an inconsistency exists, the extent to which the BLM would reconcile the proposed action with the plan or law should be described. (40 CFR §§ 1502.16(c) and 1506.2(d))

Possible conflicts and the BLM’s reconciliation of them, as applicable, are discussed in section 4.2 for each of the environmental elements addressed in this chapter.

4.1.3 Direct, Indirect, Unavoidable Adverse, and Cumulative Effects²

Direct effects are those caused by the action and occur at the same time and place (40 CFR § 1508.8(a)). *Indirect effects* are those caused by the action and are later in time or further removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on water and air and other natural systems, including ecosystems. (40 CFR § 1508.8(b)) Reasonably foreseeable future actions are those for which there are existing decisions, funding, formal proposals, or which are highly probable, based on known opportunities or trends; however, speculation about future actions is not required (BLM 2008a). *Unavoidable adverse effects* are negative impacts to the environment that would occur as a result of an action and that cannot be sufficiently mitigated to a less than significant level. Unavoidable adverse effects may not occur for all programs or resources, and are only discussed where applicable. *Cumulative effects* are those resulting from the incremental impacts of an action when added to other past, present, and reasonably foreseeable future actions, regardless of which agency or person undertakes such actions. Cumulative effects could result from individually insignificant but collectively significant actions taking place over a period of time. (40 CFR § 1508.7)

The Council on Environmental Quality’s regulations at 40 CFR § 1502.16 address the scientific and analytic basis for the comparisons of alternatives. Chapter four of this draft EIS consolidates the discussions of those elements required by sections 102(2)(C)(i), (ii), (iv), and (v) of the National Environmental Policy Act which are within the scope of this draft EIS, and as much of Section 102(2)(C)(iii) as is necessary to support the comparisons. The discussion includes

² The terms “effects” and “impacts” are synonymous in the Council on Environmental Quality’s regulations at 40 CFR Parts 1500-1508 addressing implementation of the NEPA’s procedural provisions. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial. (40 CFR § 1508.8)

environmental impacts of the alternatives, any adverse environmental effects which cannot be avoided should the proposal be implemented, the relationship between short-term uses of the human environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources which would be involved in the proposal should it be implemented.

It is challenging to ascribe direct, indirect, unavoidable adverse, and cumulative effects of implementing the proposed action or an alternative action due, in large part, to the planned delay in acquiring land value appraisals. As a result of this delay, a precise description of which selected public lands would be exchanged for the offered Tribal lands is not currently available. Such delay in acquiring these appraisals, however, is warranted because: (1) land appraisals are time sensitive and costly,³ (2) funding for acquiring land appraisals is limited, and (3) administrative processes leading to the issuance of a decision in this action may exceed the validity period for the appraisals.⁴ It is unreasonable, therefore, to risk expiration of validity for the appraisals by delaying publication of this draft EIS so that it incorporates the appraisal opinions. Such delay could result in a need to repeat the appraisals, thereby incurring considerable additional costs. Consequently, the portrayal of environmental effects in this chapter reflect the manner in which the proposed land exchange would be completed, as described in chapter two of this draft EIS.⁵ As the extent of the selected public lands proposed for transfer to the Tribe is not precisely known at this time, the order in which the selected public lands are considered when equalizing property values is critical to the analysis of potential environmental impacts, especially if only a portion of these public lands are transferred to the Tribe with the BLM retaining the remainder of them.

³ Appraisal opinions are as of a certain fixed date. Approved appraisal reports or appraised values generally remain accurate for about six to twelve months from the effective date of the value opinion. However, the length of time before the approved values should be brought current depends on local market conditions affecting the real estate or other economic conditions that may result in a significantly shorter or longer validity period. (BLM 2005b) For consideration in this draft EIS, it is assumed the validity period for the appraisal is six months. Regarding appraisal costs, the BLM's supplement to the feasibility report for the proposed land exchange estimated these costs as \$50,000 for both the public and Tribal lands. (BLM 2001b)

⁴ Administrative processes for land exchanges can be lengthy with schedules that may unpredictably require modification. The public comment period for this draft EIS is 90 days; formal consultation with the U.S. Fish and Wildlife Service, if necessary (versus informal consultation), and issuance of a biological opinion can take up to 135 days (50 CFR § 402.14(e)), though more time may be required if the USFWS determines that additional data would provide a better information base from which to formulate a biological opinion and requests an extension of formal consultation to obtain additional data (50 CFR § 402.14(f)); and preparation of the final EIS, including analysis and incorporation of public comments, as applicable, and issuance of the decision can take several more weeks depending on the nature of the comments and extent of revisions to the draft EIS.

⁵ The proposed action and preferred alternative both establish a sequence of steps for undertaking the value equalization process, and once values are equalized, the exchange is complete. It is possible, even likely, that certain public lands identified for potential exchange will be retained by the BLM at the conclusion of this land exchange. If the BLM does retain some of the selected public lands, they would probably consist of lands identified as BLM Category 2 and/or 3 parcels; Category 1 parcels would be the first to be considered in the value equalization process (see chapter two).

4.1.4 General Analytical Assumptions

The following assumptions condition analyses of impacts herein contained:

- The population in the project area will continue to grow.

The population of Palm Springs was 43,400 in 2008, and is projected to increase to 48,900 by 2020 and 56,100 by 2035 (Southern California Association of Governments 2012).

- Demand for certain non-motorized recreational activities on public lands will increase.

Between 2008 and 2060, participation in day hiking on a national level is projected to increase 45-88 percent, while participation in horseback riding on trails may increase 44-110 percent (Bowker, et al. 2012). Between 1999 and 2009, bicycling on mountain or hybrid bikes fell about 3 percent (Cordell 2012). Empirical data regarding participation in these recreational activities in the project area are not available.

- The endangered population of bighorn sheep occupying the Peninsular Ranges of California will not be down-listed or delisted in the near term.

Peninsular bighorn sheep may be considered for down-listing when at least 25 adult ewes are present in each of the nine recovery regions during each of six consecutive years without continued population augmentation. To take Peninsular bighorn sheep off the threatened and endangered species list (“delisting”), at least 25 adult ewes must be present in each of the nine recovery regions during each of 12 consecutive years without continued population augmentation, and the range-wide population must average 750 individuals (adults and yearlings) with a stable or increasing population trend over 12 consecutive years. (USFWS 2000)

- Management of trails for non-motorized recreational purposes on lands acquired by the Tribe and the BLM will not change in the short term, except as it may affect mountain bicyclists on certain trails or as could be necessary to protect resource values.

The Tribe has committed to managing trails in the same manner as the BLM upon acquisition of public lands through the proposed land exchange (ACBCI 2012). Further, existing cooperative management arrangements between the Tribe and the BLM support a collaborative approach in addressing public access to the trail system, thereby fostering consistency of management across jurisdictional boundaries. Changes in resource conditions—such as dramatic declines in the populations of Peninsular bighorn sheep in the San Jacinto and North Santa Rosa Mountains recovery units, or substantial degradation of trail conditions due to overuse, erosion, or other environmental factors—could prompt changes to the management of specific trails, whether by the Tribe or the BLM.

Bicycles are currently allowed on all federal portions of trails on the selected public lands, as well as trails on the offered Tribal lands in section 7, T.5S. R.5E. However, bicycles are prohibited on the East Fork Loop Trail where it traverses the offered Tribal lands in section 19, T.5S. R.5E. Likewise, bicycles are prohibited on all nonfederal portions of trails under jurisdiction of the City of Palm Springs in section 36, T.4S. R.4E., specifically the Araby, Berns, Garstin, and Shannon Trails. Except for the Berns Trails, the BLM intends to prohibit bicycles on the federal portions of the Araby, Garstin, and Shannon Trails for consistency with the restriction imposed by the City of Palm Springs.⁶ It is anticipated that the Tribe, should it acquire section 36, would likewise prohibit bicycle travel on the acquired portions of these trails and allow bicycles on the other trails or trail segments in this section, thereby following through on its commitment to manage trails in the same manner as the BLM.

- Reasonably foreseeable development of the selected public lands and offered Tribal lands identified for the potential land exchange is limited to construction of a non-motorized trail connecting the Garstin and Thielman Trails.

Reasonably foreseeable future actions are those for which there are existing decisions, funding, formal proposals, or which are highly probable, based on known opportunities or trends; however, speculation about future actions is not required (BLM 2008a). As previously indicated, the Tribe has not expressed intent to develop any portion of the public lands it acquires from the BLM. In addition, the Tribe has committed to managing the acquired lands consistent with the Indian Canyons Master Plan and the Tribal Habitat Conservation Plan, as applicable, which constrain development options on lands within the Mountains and Canyons Conservation Area. Similarly, the BLM is not proposing any development on the lands it acquires from the Tribe, nor is it aware of any proposals for development that may be forthcoming once the Tribal lands have been acquired.

However, as indicated in the response to issue question d(ii) in section 1.4 of this draft EIS, it is reasonably foreseeable that a trail connecting the Garstin and Thielman Trails may be constructed. Such trail is addressed in the multijurisdictional trails management plan element of the CVMSHCP for which the BLM anticipates issuing a separate decision. A portion of this connector trail occurs on the selected public lands in section 36, T.4S. R.4E., which is not included in the preferred alternative, and section 1, T.5S. R.4E., which is not included in the suite of selected public lands.

- The laws, regulations, policies, and plan prescriptions affecting the BLM's management of public lands and the Tribe's management of Tribal lands are applied consistently for all alternatives.

⁶ The vast majority (about 99 percent) of the Berns Trail is on public lands. In order to enhance opportunities for mountain biking in this area, and given the low risk of conflict between equestrians and bicyclists on this trail, it is the BLM's intent to allow bicyclists to continue using the Berns Trail.

4.1.5 Summary of Elements of the Human Environment Addressed or Not Addressed

As indicated in section 3.1 of this draft EIS, only those environmental elements determined to be potentially impacted by the proposed action or alternatives, or identified through scoping as significant issues to be analyzed in depth, are carried forward for further analysis in this chapter; such environmental elements are Recreation Resources, Threatened and Endangered Animal Species, and Wild and Scenic Rivers. Elements which would not be potentially impacted or were not identified through scoping as significant issues are not further addressed; these include the following: Air Quality, Areas of Critical Environmental Concern, Cultural Resources, Energy, Environmental Justice, Farmlands, Floodplains, Health and Safety Risks to Children, Invasive/Nonnative Species, Minerals, Native American Concerns, Noise, Threatened and Endangered Plant Species, Visual Resource Management, Wastes, Water Quality, Wetlands/Riparian Zones, and Wilderness.

4.2 Impact Analysis

4.2.1 Impacts to Recreation Resources

As expressed in section 4.1.3, the planned delay in acquiring land value appraisals makes it challenging to describe direct, indirect, unavoidable adverse, and cumulative effects since a precise description of which public land parcels would ultimately be exchanged for Tribal lands is not available at this time. With respect to non-motorized recreational trails, this means the extent of trails passing from public to Tribal ownership upon implementing the proposed land exchange or preferred alternative cannot yet be accurately described. Consequently, impacts to recreation resources are described in such manner as to reflect the sequence of steps for undertaking the value equalization process, touching on various scenarios whereupon land values are equalized and the exchange is concluded.

For purposes of this analysis, therefore, the following land value equalization scenarios are established, consistent with the process identified in chapter two for completing the land exchange:

Scenario one: Only BLM Category 1 lands are exchanged for the offered Tribal lands; no BLM Category 2 or 3 lands are exchanged—see section 2.2 (proposed action), steps 1 and 2.⁷

Scenario two: Only BLM Category 1 and 2 lands are exchanged for the offered Tribal lands; no BLM Category 3 lands are exchanged—see section 2.2 (proposed action), steps 1 through 3.

Scenario three: All BLM Category 1, 2, and 3 lands are exchanged for the offered Tribal lands—see section 2.2 (proposed action), steps 1 through 4.

⁷ As described in section 1.4a(i), this scenario may be the most likely outcome *if* the relative value of the selected public lands compared to the offered Tribal lands as determined through the land value appraisal (to be forthcoming) is consistent with estimated land values provided in “Supplement to the Agreement to Initiate Assembled Land Exchange Between the Bureau of Land Management and the Agua Caliente Band of Cahuilla Indians” (BLM and ACBCI 2003).

The analysis of impacts under scenarios one through three is additive, i.e., the effects of scenario two include those identified for scenario one, and the effects of scenario three include those identified for scenarios one and two.

A fourth scenario that represents the preferred alternative will also be utilized for analysis purposes. The effects of this scenario would be identical to either scenario one or two *if* the land exchange is completed before BLM Category 3 lands are considered in the land value equalization process described in chapter two. But if the appraised value of all BLM Category 1 and 2 parcels is less than the appraised value of the offered Tribal parcels, BLM Category 3 parcels would be added to the exchange to have parity in value for lands to be exchanged, though under the preferred alternative, section 36, T.4S. R.4E., would be excluded from consideration.

Scenario four: All BLM Category 1, 2, and 3 lands, except section 36, T.4S. R.4E., are exchanged for the offered Tribal lands—see sections 2.2 (proposed action), steps 1 through 4, and 2.3 (preferred alternative).

An additional challenge in describing environmental impacts to recreation resources stems from the lack of clear differences in effects resulting from implementation of the proposed action, preferred alternative, or no action alternative. As previously indicated, the proposed land exchange is, in essence, an administrative change of ownership only. With respect to public access to the existing non-motorized trail system, no changes are anticipated. The Agua Caliente Band of Cahuilla Indians has committed to managing trails on the acquired lands in the same manner as occurred prior to the exchange; changing or curtailing public access to these trails is neither feasible nor practical (ACBCI 2012). The BLM’s management of trails on lands it acquires from the Tribe is anticipated to mirror that for other trails the agency manages in the project area. In all likelihood, a trail user would be unaware of an exchange having occurred.

Trails on the selected public lands and offered Tribal lands subject to the proposed land exchange are depicted in Figures 5b and 5c.

Acquisition of Tribal lands common to the proposed action and preferred alternative

In accordance with the proposed action and preferred alternative, as represented by scenarios one through four describing potential outcomes of the land value equalization process, Tribal lands in sections 7, 19, and 20, T.5S. R.5E., would be transferred to the BLM. Segments of the following “official” trails would be included in this transfer: Dunn Road Trail (0.6 mile), Wild Horse (1.1 miles), and East Fork Loop (0.7 mile), totaling 2.4 miles. Management authority for about 0.7 mile of unnamed “social” trails would also be transferred to the BLM. These circumstances are consistent for each exchange scenario.⁸

⁸ In the unlikely event that the appraised value of the offered Tribal lands exceeds the appraised value of the selected public lands (see the discussion in section 1.4a(i) regarding the most likely outcome of the land value equalization process), the extent of Tribal lands included in the exchange may be reduced so that the total value of Tribal lands is equal to the federal parcels, or a cash payment not exceeding 25 percent of the value of the Tribal lands may be made by the BLM to conclude the exchange. As a result, certain trail segments could be retained by the Tribe. This outcome, however, is not anticipated.

Use of “official” and “social” trails on lands acquired from the Tribe:

It is anticipated the BLM would manage segments of the Dunn Road Trail and Wild Horse Trail in section 7, T.5S. R.5E. (to be acquired from the Tribe), consistent with management prescriptions established for adjacent segments of these trails on public lands. Specifically, hiking, mountain biking, and horseback riding would be allowed year-round; such uses are currently allowed on these trails, whether on BLM or Tribal lands. On the other hand, management of the East Fork Loop Trail in section 19, T.5S. R.5E., upon acquisition by the BLM, would likely include a prohibition of mountain bikes, consistent with the current prohibition of bicycles on this trail segment and a prohibition of bicycles on the adjoining segment on Tribal lands (section 24, T.5S. R.4E.). A decision by the BLM to allow mountain bikes on the East Fork Loop Trail in section 19 upon its acquisition would facilitate trespass on the Tribal portion of this trail in section 24, contrary to the coordinated management approach as agreed upon by the two entities in 1999 (BLM and ACBCI 1999a).

Unnamed social trails may be reclaimed or added to the network of official trails, dependent on a separate determination by the BLM. The BLM’s acquisition of the offered Tribal lands, therefore, would result in no change to recreational opportunities for hiking, mountain biking, and horseback riding on these lands if all social trails are reclaimed, or enhancement of such opportunities should the BLM determine that certain social trails warrant inclusion in the approved network of trails.

Cross-country travel on lands acquired from the Tribe:

Cross-country (or “off-trail”) travel and the use of social trails are closely related. Cross-country travel is defined as hiking, mountain biking, horseback riding, or similar non-motorized conveyance off trails specifically identified as part of the approved trail system (CVAG 2007 and 2014). Hence, the use of social trails constitutes cross-country travel.

As discussed in section 1.4d(v), hiking on Tribal lands is allowed on designated trails only in accordance with the Tribal Habitat Conservation Plan; no cross-country travel is allowed. In accordance with the trails management plan element of the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP), cross-country travel on nonfederal lands subject to the trails management plan is prohibited from January 1 through September 30, and allowed from October 1 through December 31. Restrictions on off-trail travel on public lands in the Santa Rosa and San Jacinto Mountains, including lands acquired from the Tribe, will be determined through a separate decision issued by the BLM. Whether such restrictions will be consistent with the seasonal limitation under the trails management plan has not been determined.

Therefore, opportunities to hike off-trail on lands acquired from the Tribe, whether it includes the use of social trails or occurs where no trails exist, would be affected by the proposed land exchange to the extent the BLM allows or restricts such travel on public lands in the project area through a separate decision process. If the BLM prohibits off-trail travel year-round, then the BLM’s acquisition of the Tribal lands in sections 7, 19, and 20, T.5S. R.5E., would have no effect on this activity; circumstances will not have changed from when the Tribe managed these lands. If, on the other hand, the BLM allows off-trail travel year-round, as is the current situation, or limits it to certain seasons only consistent with the trails management plan element of the CVMSHCP, then opportunities for such travel would be enhanced on these 1,470 acres, though no empirical data are available regarding occurrences of cross-country travel in the project area to suggest whether increased opportunities would be realized as actual use.

Access with dogs on lands acquired from the Tribe:

In 2000, the BLM temporarily prohibited persons bringing dogs onto certain public lands in what was then the Santa Rosa Mountains National Scenic Area, pending completion of a comprehensive trails management plan addressing all aspects of trail and trailhead use (BLM: 65 FR 3473, January 21, 2000); such trails management plan was being developed as an element of the Coachella Valley Multiple Species Habitat Conservation Plan.⁹ Whereas the temporary prohibition did not extend to public lands west of Palm Canyon, it included public lands that are contiguous to the offered Tribal lands in Township 5 South, Range 5 East. Consistent with this temporary prohibition, the trails management plan element of the CVMSHCP, as referenced in the temporary closure order, prescribes a prohibition of dogs throughout essential habitat for Peninsular bighorn sheep, except in designated areas; no such excepted areas *currently* exist in the project area for the proposed land exchange (CVAG 2007).¹⁰ Adoption of the dog prohibition as a supplementary rule applicable to the public lands that are contiguous to the offered Tribal lands, with expansion of the prohibition to lands acquired by the BLM through the proposed land exchange, is likely. As a consequence, opportunities for hiking with dogs would not be affected by the land exchange when compared to current circumstances. Conversely, should the BLM's decision allow leashed dogs on public lands within essential bighorn sheep habitat—a decision to be made separate from that regarding the proposed land exchange—opportunities for hiking with dogs would be increased; hikers and other trail users could access considerably more of the northern Santa Rosa Mountains than in recent years.¹¹ Such decision, however, is not anticipated.

4.2.1.1 Proposed Action

Scenario one:

As discussed in section 1.4a(i), scenario one represents the most likely outcome *if* the relative appraised value of the BLM Category 1 public lands equals the appraised value of the offered Tribal lands as determined through the land value equalization process. In this scenario, a 1.3-

⁹ The temporary prohibition of entry with dogs preceded designation of the Santa Rosa and San Jacinto Mountains National Monument by about nine months. Designation of the national monument encompassed public lands within the Santa Rosa Mountains National Scenic Area. The temporary prohibition of entry with dogs carried forward its applicability to the same public lands within the national monument.

¹⁰ The trails management plan element of the CVMAHCP addresses a proposed trail that would connect the Garstin and Thielman Trails—it would be known as the Frank Bogert Trail. The plan indicates that the lower segments of the Garstin and Thielman Trails, along with the connector trail, would be available for access with leashed dogs. When the CVMSHCP was approved in 2008, the northern segment of the proposed trail would be located on public lands in section 36, T.4S. R.4E., with the southern segment located on private lands in section 1, T.5S. R.4E. In 2010, the BLM acquired these private lands, thereby making the proposed project a federal action only, pending the outcome of the proposed land exchange. However, what may become a designed trail for dogs would not affect the manner in which entry with dogs is managed on lands acquired by the BLM from the Tribe.

¹¹ A leash requirement for pets on public lands in the Monument was established upon publication of an order in the Federal Register on July 28, 2005. The order additionally prohibits pets in essential habitat for Peninsular bighorn sheep, except in designated areas as determined through the trails management plan element of the CVMSHCP. (BLM: 70 FR 43712)

mile segment of the Jo Pond Trail would be included in the transfer of public lands to the Tribe; no segments of other official trails would be affected. About 0.1 mile of unnamed social trails would also be included in the transfer. The BLM would retain management authority for segments of the following official trails: Skyline (1.8 miles), North Lykken (0.1 mile), Indian Potrero (1.0 mile), Palm Canyon (1.2 miles), Araby (0.3 mile), Berns (1.0 mile), Garstin (1.0 mile), Shannon (0.9 mile), Thielman (0.3 mile), and Wild Horse (0.8 mile), totaling 8.4 miles. Management authority for about 2.1 miles of unnamed social trails would also be retained by the BLM. Of the total mileage for official trails located on the selected public lands, 13.4 percent would be transferred to the Tribe; only 4.5 percent of the social trails would be transferred to the Tribe in this scenario.¹²

Segments of the following official trails would be included in the transfer of Tribal lands to the BLM: Dunn Road Trail, Wild Horse, and East Fork Loop, totaling 2.4 miles. Management authority for an undetermined extent of unnamed social trails would also be transferred to the BLM.

Table 4.2.1.1: Scenario one, changes to management authority for official trails¹³

BLM to Tribe	BLM to Tribe	Retained by BLM	Retained by BLM	Tribe to BLM	Tribe to BLM
Trail	Miles	Trail	Miles	Trail	Miles
Jo Pond	1.3	I. Potrero	1.0	Dunn Rd Tr	0.6
		P. Canyon	1.2	Wild Horse	1.1
		Skyline	1.8	E Fork Loop	0.7
		N. Lykken	0.1		
		Araby	0.3		
		Berns	1.0		
		Garstin	1.0		
		Shannon	0.9		
		Thielman	0.3		
		Wild Horse	0.8		
Total	1.3	Total	8.4	Total	2.4

¹² As described in section 3.2.13 of this draft EIS, *official* trails in the context of the proposed land exchange are those identified by the BLM and the Tribe where some type of use is appropriate and allowed either seasonally or year-round, and which have been inventoried and depicted on maps that are created or sponsored by the BLM or the Tribe. *Social* trails are those that developed informally from use (i.e., not constructed), and are not maintained or scheduled to be maintained by an agency. They are typically associated with official trails, constituting shortcuts of switchbacks, trail braids (multiple paths deviating from the main trail), or connectors between adjacent trails.

¹³ Consistent with Tables 3.2.14.1 and 3.2.14.2 in chapter three of this draft EIS, the extent of social trails is not included in Tables 4.2.1.1 through 4.2.1.6 in this section since the inventory of such trails on Tribal lands is incomplete. However, all known social trails on the selected public lands, totaling about 2.2 miles, are depicted in Figures 5b and 5c. As previously indicated, should the BLM acquire the offered Tribal lands as proposed, the inventory will be expanded to include all social trails on the acquired lands.

Direct effects

Use of “official” trails:

Jo Pond Trail

Under scenario one of the proposed action, the only official trail on public lands affected by the proposed land exchange is the Jo Pond, which connects Cedar Spring on National Forest System lands with Tribal lands in Palm Canyon via the West Fork Trail. The segment of the Jo Pond Trail on public lands that would be transferred to the Tribe is located between segments under jurisdiction of the Tribe, which are subject to prescriptions of the THCP. In practicality, therefore, recreational use of the intervening segment must correspond to management of the adjoining segments. For example, whereas mountain biking is generally prohibited on Tribal lands, it is generally allowed on public lands, including the public land segment of the Jo Pond Trail. However, if bicyclists cannot legally access this segment of the trail because of the prohibition affecting the adjoining Tribal segments, then in all practicality, mountain biking cannot occur on it, whether before or after the land exchange. Hence, whether the Tribe continues the BLM’s management prescription for allowing mountain bicycling on this segment of the Jo Pond Trail upon acquiring section 21, T.5S. R.4E., or prohibits bicycling for management consistency with the adjoining segments would make no difference in practicality.

Use of “social” trails:

The only social trail inventoried in section 21, T.5S R.4E.—a short dead-end spur (0.1 mile) off the Jo Pond Trail—is most likely a remnant of what may have been the main trail’s previous alignment. The USGS base map for this area depicts a trail that parallels the “GPSed” location of the Jo Pond Trail (i.e., its location based on data collected with the use of Global Positioning System equipment). The identified social trail coincides with a segment of the Jo Pond depicted on the USGS base map. Evidence of other segments of the depicted trail is scant or nonexistent, probably due to lack of use in favor of the now primary trail.

As previously indicated, hiking on Tribal lands is allowed on designated trails only in accordance with the Tribal Habitat Conservation Plan; hence, travel on social trails is not allowed. Upon acquisition of section 21 by the Tribe, therefore, use of the social trail identified above would be prohibited. Since its use is probably low to nonexistent, effects of the acquisition on opportunities for recreation would concomitantly be low to nonexistent. Ultimately, whether the BLM retains the section or the Tribe acquires it, this social trail will likely be reclaimed by the forces of nature.

Cross-country travel:

Under scenario one of the proposed action, opportunities for cross-country (off-trail) travel may be diminished. Whereas cross-country travel is currently allowed on the 4,015 acres of public lands that would be transferred to the Tribe, such travel would be prohibited upon acquisition by the Tribe, consistent with provisions of the THCP. Empirical data regarding levels or frequency of cross-country travel in the project

area, however, are not available, though the preponderance of steep rugged terrain, especially on the east flank of the San Jacinto Mountains, serves to constrain this type of recreational activity. Whether the loss of opportunities for cross-country travel would result in adverse impacts to cross-country travel on BLM Category 1 lands, therefore, is unknown, but such impacts are anticipated to be minor, if at all.

This assessment regarding impacts to opportunities for cross-country travel, however, is conditional. As previously described in this section regarding the BLM's management of lands acquired from the Tribe, opportunities for off-trail hiking, mountain biking, or horseback riding would be affected by the proposed land exchange to the extent the BLM allows or restricts such travel on public lands in the project area through a separate decision-making process as relates to the trails management plan element of the Coachella Valley Multiple Species Habitat Conservation Plan. Therefore, the analysis as provided above for scenario one is conditioned on a future BLM decision that would allow cross-country travel to continue; hence, the potential exists for a reduction of opportunities for this recreational endeavor upon the Tribe's acquisition of selected public lands. If the BLM's decision were to prohibit cross-country travel on public lands in the project area on a year-round basis, potential effects of the land exchange would be imperceptible in this respect, mirroring the Tribe's prohibition of such travel on Tribal lands.

In summary, potential effects of the proposed land exchange as it affects opportunities for cross-country travel are conditioned on a future decision by the BLM in this regard; even under the no action alternative, such opportunities may be continued, restricted, or eliminated altogether.¹⁴

Access with dogs:

Hiking with pet dogs is an important recreational opportunity for many trail users in the Coachella Valley. Therefore, the extent to which the proposed land exchange or alternatives affect this opportunity is herein addressed.

Consistent with the manner in which access to and use of trail segments managed by one jurisdiction are substantially affected by the management of adjacent trail segments, whether hikers accompanied by dogs can legally access the public land segment of the Jo Pond Trail in section 21, T.5S. R.4E., is wholly dependent on management prescriptions applicable to the adjacent Tribal lands. Whereas the BLM currently allows dogs on the public land segment of this trail,¹⁵ dogs are prohibited

¹⁴ As described in section 1.4f(ii), reasonably foreseeable future actions include those which are highly probable based on known opportunities or trends (BLM 2008a). Given the BLM's collaboration with the Coachella Valley Association of Governments in developing the multi-jurisdictional trails management plan element of the CVMSHCP, it is therefore reasonably foreseeable that the BLM will render a decision regarding applicability of the trails plan to federal lands, though whether such decision occurs before or after conclusion of the land exchange is unknown at this time. The decision itself, however, is not reasonably foreseeable; it would be an outcome of the decision-making process and based on an analysis of effects consistent with the NEPA.

¹⁵ The temporary prohibition of dogs on certain public lands in the Santa Rosa Mountains, pending completion of a comprehensive trails management plan as part of the Coachella Valley Multiple Species

on the adjacent Tribal lands. As a result, hikers with dogs cannot reasonably access and use the public land segment of the Jo Pond Trail. Hence, there is no practical difference whether the Tribe continues the BLM's management prescription for allowing hikers with dogs on this segment of the Jo Pond Trail upon acquiring section 21, T.5S. R.4E., or prohibits dogs for management consistency with the adjoining lands.

Indirect effects

No indirect effects to recreation resources are anticipated from implementation of scenario one.

Scenario two:

This scenario is presented as a possible outcome should the appraised value of the selected public lands in BLM Category 1 and BLM Category 2 equal the value of the offered Tribal lands as determined through the land value equalization process described in section 2.2. Regarding the transfer or retention of management authority for non-motorized trails, this scenario differs from scenario one only with respect to segments of the Indian Potrero and Palm Canyon Trails in section 36, T.5S. R.4E., which instead of being managed by the BLM would come under jurisdiction of the Tribe. Hence, segments of the Jo Pond, Indian Potrero, and Palm Canyon Trails, totaling 3.5 miles in length, would be managed by the Tribe under scenario two, while segments of the Skyline, North Lykken, Araby, Berns, Garstin, Shannon, Thielman, and Wild Horse Trails, totaling 6.2 miles in length, would continue to be managed by the BLM. About 1.4 miles of social trails would also be transferred to the Tribe; the BLM would continue to manage about 0.8 mile of them. Of the total mileage for official trails located on the selected public lands, 36.1 percent would be transferred to the Tribe, while 60.8 percent of the social trails would likewise be transferred.

Consistent with scenario one, segments of the following official trails would be included in the transfer of Tribal lands to the BLM: Dunn Road Trail, Wild Horse, and East Fork Loop, totaling 2.4 miles. Management authority for an undetermined extent of unnamed social trails would also be transferred to the BLM.

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Habitat Conservation Plan, does not extend to section 21, T.5S. R.4E. (BLM: 65 FR 3473, January 21, 2000). The BLM has yet to issue its decision regarding applicability of this trails management plan to federal lands.

Table 4.2.1.2: Scenario two, changes to management authority for official trails

BLM to Tribe	BLM to Tribe	Retained by BLM	Retained by BLM	Tribe to BLM	Tribe to BLM
Trail	Miles	Trail	Miles	Trail	Miles
Jo Pond	1.3	Skyline	1.8	Dunn Rd Tr	0.6
I. Potrero	1.0	N. Lykken	0.1	Wild Horse	1.1
P. Canyon	1.2	Araby	0.3	E Fork Loop	0.7
		Berns	1.0		
		Garstin	1.0		
		Shannon	0.9		
		Thielman	0.3		
		Wild Horse	0.8		
Total	3.5	Total	6.2	Total	2.4

Direct effects

Use of “official” trails:

Under scenario one, the only official trail on public lands affected by the proposed land exchange is the Jo Pond. Under scenario two, segments of the Indian Potrero and Palm Canyon Trails are additionally affected.

Jo Pond Trail

Direct effects of the proposed land exchange regarding recreational activities on the Jo Pond Trail are the same as described for scenario one.

Indian Potrero Trail

Indian Potrero Trail generally parallels Palm Canyon Trail for about 2.3 miles, providing an alternate opportunity for hiking and horseback riding in Palm Canyon. Of these 2.3 miles, about one mile occurs on the selected public lands in section 36, T.5S. R.4E., with most of the remaining mileage on nonfederal, non-Tribal lands in adjacent section 25 (T.5S. R.4E.). Approximately 0.4 mile of the trail is located on Tribal lands in section 26 (T.5S. R.4E.), and less than 0.1 mile occurs at the trail’s northern terminus on Tribal lands in section 24 (T.5S. R.4E.). Unlike the public land segment of the Jo Pond Trail, however, the public land segment of the Indian Potrero Trail is not bounded by Tribal lands; the trail’s southern terminus and intersection with the Palm Canyon Trail is located on the selected public lands.

Nevertheless, access to and use of the Indian Potrero Trail, like any trail that spans multiple jurisdictions, is affected by management prescriptions established for each segment by the various entities. If such prescriptions are identical, it is clear to the trail user whether access is allowed or restricted. But should the prescriptions differ from one another, the most restrictive one often dictates access limitations in practicality, such as described for the Jo Pond Trail.

Are there different restrictions on hiking, mountain biking, or horseback riding between segments of the Indian Potrero Trail due to inconsistencies in management by the three jurisdictions? Yes, but only with respect to mountain biking. While both

the public land segment and the nonfederal, non-Tribal land segment are open to hiking, mountain biking, and horseback riding—the latter segment being subject to provisions of the Coachella Valley Multiple Species Habitat Conservation Plan, including its element addressing public use and trails management on reserve lands in the Santa Rosa and San Jacinto Mountains Conservation Area (CVAG 2007)—the Tribal segments are closed to mountain biking. If bicyclists cannot legally access this segment of the trail through the northern terminus because of the Tribe’s prohibition affecting the segment in section 24, and access from the south can only occur as far as the trail’s intersection with Tribal lands in section 26, then in practicality, mountain biking is substantially limited on it. In essence, Indian Potrero Trail is a one-mile dead-end trail for mountain bikers.

Upon acquisition of section 36 by the Tribe and continuation of the BLM’s allowance for mountain biking on this trail segment, should the Tribe choose to make such an allowance consistent with its commitment to manage non-motorized activities on the acquired lands in the same manner as the BLM, opportunities for this recreational activity would not change. However, if the Tribe were to prohibit mountain bikes on the acquired segment of the Indian Potrero Trail for consistency with its prohibition on the Tribal segments in sections 24 and 26, impacts to mountain biking would be minor given availability of the parallel Palm Canyon Trail on which bicycles are allowed (see discussion below). Hence, whether the Tribe continues the BLM’s management prescription for allowing mountain bicycling on this segment of the Indian Potrero Trail upon acquiring section 36, T.5S. R.4E., or prohibits bicycling for management consistency with other segments of the trail on Tribal lands, it would make little difference in practicality.¹⁶

However, since access to the Indian Potrero Trail is governed by management prescriptions affecting access to the Palm Canyon Trail, circumstances affecting mountain biking activities on National Forest System lands to the south are important to acknowledge (see discussion below regarding the Palm Canyon Trail).

Palm Canyon Trail

Palm Canyon Trail is the primary route for non-motorized recreational activities within its namesake, extending for about 16 miles from State Highway 74 in the Pinyon Flat area to the Trading Post in the Indian Canyons. It traverses lands managed by multiple jurisdictions, including the BLM and the Tribe. About 1.2 miles of this trail occur on public lands in section 36, T.5S. R.4E. Other jurisdictions with management responsibility for the Palm Canyon Trail include the Coachella Valley Mountains Conservancy, Friends of the Desert Mountains, and the U.S. Forest Service. Several other trails intersect the Palm Canyon Trail, thereby providing alternate access to it. These include the Omstott, Pinyon, Live Oak Canyon, Oak Canyon, Dutch Charlie, Potrero Canyon, Dry Wash, East Fork, Vandeventer, Victor, and West Fork Trails.

¹⁶ Currently, mountain bikers heading north on Palm Canyon Trail are encouraged to stay on this trail and off Indian Potrero Trail to avoid trespassing on Tribal lands further to the north; a sign directing bikers to the Palm Canyon Trail was installed at this intersection in March 2014.

As for all trails on the selected public lands, opportunities for hiking and horseback riding on the Palm Canyon Trail are not currently constrained; the same holds true for segments of the trail on other jurisdictional lands. But with respect to mountain biking on this trail, similar circumstances occur as with the other two trails discussed thus far (Jo Pond and Indian Potrero Trails): access to and use of the segment on the selected public lands is largely dependent on restrictions imposed by other jurisdictions on adjacent segments. This is a common thread for trails crossing multiple management entities. How, then, is mountain biking on the Palm Canyon Trail affected under scenario two of the proposed land exchange?

Consistent with the Tribe's prohibition of mountain biking on most trails currently under its jurisdiction, mountain bikes cannot travel on the Palm Canyon Trail north of its intersection with the Dry Wash Trail in section 24, T. 5S. R.4E., but may continue to use the trail south of this intersection, as well as the Dry Wash Trail where it occurs on Tribal lands, thereby enabling access to the system of trails in the Murray Hill complex via Dry Wash Trail, Dunn Road, and Hahn Buena Vista Trail.

Therefore, consistent with the Tribe's commitment to manage trails in the same manner as the BLM upon acquisition of public lands (ACBCI 2012), no changes regarding access to Palm Canyon Trail by hikers, mountain bikers, and horseback riders would result from implementation of the proposed land exchange.

It is important to acknowledge, however, existing and potential restrictions on mountain bike access to the Palm Canyon Trail where it occurs on National Forest System lands under jurisdiction of the San Bernardino National Forest. As depicted in the San Bernardino National Forest Land Management Plan (Forest Service 2005), segments of the trail traverse lands recommended for wilderness designation in section 13, T.6S. R.4E., and sections 18 and 19, T.6S. R.5E. Lands the Forest Service recommends for wilderness designation are managed to maintain their existing wilderness character and potential for inclusion in the National Wilderness Preservation System until Congress passes legislation designating the wilderness or the area is released from consideration through future planning efforts. Accordingly, mechanized recreation, such as mountain biking, is a nonconforming use on segments of the Palm Canyon Trail where located in the *Recommended Wilderness* land use zone.

The San Bernardino National Forest is in the process of amending its land management plan.¹⁷ Both the proposed action and preferred alternative of the Southern California National Forests Land Management Plan Amendment (Forest Service 2013) include the same lands recommended for wilderness designation as identified in the 2005 revised plan for the San Jacinto Ranger District of the San Bernardino National Forest; mountain biking would remain a nonconforming use on certain segments of the Palm Canyon Trail if either alternative is adopted.¹⁸

¹⁷ The Angeles, Cleveland, Los Padres, and San Bernardino National Forests are amending their respective land management plans as they relate to roadless area management and to monitoring. The proposed amendment is a result of a settlement agreement approved January 3, 2011, as the remedy for two lawsuits challenging the revised land management plans (California Resources Agency, et al. v. U.S. Department of Agriculture; and Center for Biological Diversity, et al. v. U.S. Department of Agriculture).

Nevertheless, access to the trail would still be available via the Potrero Canyon Trail which intersects the Palm Canyon Trail north of its location within the *Recommended Wilderness* land use zone (Pyramid Peak A).

Most of the Palm Canyon Trail on National Forest System lands, however, occurs within the *Recommended Wilderness* land use zone under the recommended wilderness emphasis alternative (alternative three). While this alternative is neither proposed nor preferred, nor is it approved in accordance with the draft Record of Decision for the Southern California National Forests Land Management Plan Amendment (Forest Service n.d.), mountain bicycle access would be largely a nonconforming use on the Palm Canyon Trail in the project area for the proposed land exchange if it were to be adopted, except for the 1.2-mile segment on the selected public lands.

Use of “social” trails:

Several social trails have been inventoried on the selected public lands in section 36, T.5S. R.4E., including a spur extending from the Indian Potrero Trail in the northwest corner of the section and a second spur extending from the Palm Canyon Trail in the southeast quarter. The remaining social trails generally parallel these two official trails in section 36. Total length of the social trails in this section is about 1.3 miles; cumulatively under scenario two, total length of affected social trails is 1.4 miles.

Since hiking on Tribal lands is allowed on designated trails only in accordance with the Tribal Habitat Conservation Plan, travel on the social trails in section 36 would not be allowed. In all likelihood, they would either be removed by the Tribe or ultimately reclaimed by the forces of nature. If section 36 is retained by the BLM, the same outcome would be probable, though the BLM would make a separate determination regarding the fate of these social trails. Since their use is probably low given the availability of the Indian Potrero and Palm Canyon Trails in this area, effects of the acquisition by the Tribe on opportunities for recreation would likewise be low.

Cross-country travel:

Under scenario two of the proposed action, opportunities for cross-country travel may be further diminished (compared to scenario one) upon the Tribe’s acquisition of BLM Category 1 and 2 lands. Whereas cross-country travel is currently allowed on the affected 4,656 acres of public lands (4,015 acres from scenario one plus 641 acres that come into play under scenario two), such travel would be prohibited upon their acquisition by the Tribe, consistent with provisions of the THCP. Empirical data regarding levels or frequency of cross-country travel in the project area, however, are not available, though the steep rugged terrain on the east flank of the San Jacinto Mountains for much of the selected public lands effectively constrains this type of

¹⁸ San Bernardino National Forest intends to relocate Palm Canyon Trail east of its current location to avoid trail-based recreation in the canyon bottom, thereby providing for mountain biking outside the *Recommended Wilderness* zone and affording increased protection of riparian habitat (Colwell pers. comm.). It is unknown, however, when planning for relocation of the trail would begin.

recreational activity. Opportunities for cross-country travel in section 36 (T.5S. R.4E.), though, are less affected by topography, particularly in the section's eastern half. Whether the loss of opportunities for cross-country travel consequent to the proposed land exchange would result in adverse impacts to cross-country travel on the BLM Category 1 and 2 lands is unknown given the lack of empirical data for this type of activity, but such impacts are anticipated to be minor.

Consistent with scenario one, however, the analysis regarding potential effects of the proposed land exchange on opportunities for cross-country travel under scenario two is conditional, dependent on a separate decision to be made by the BLM regarding this activity (see previous discussion).

Access with dogs:

The BLM currently prohibits access with dogs in section 36, T.5S. R.4E.¹⁹ The Tribe also prohibits dogs on the lands it manages in the project area. Therefore, upon acquisition of section 36 by the Tribe, there would be no change in this regard. When considered in light of the circumstances described above for scenario one, the Tribe's prohibition of dogs on the acquired BLM Category 1 and 2 lands combined represents no change, whether from a practical point of view (as occurs under scenario one) or as a regulatory matter (as occurs for section 36).

Indirect effects

No indirect effects to recreation resources are anticipated from implementation of scenario two.

Scenario three:

This scenario constitutes the proposed land exchange as originally conceived whereupon all the selected public lands would be transferred to the Tribe in exchange for the offered Tribal lands, though as previously discussed, it would likely have required the purchase of additional lands by the Tribe to complete the exchange. While this scenario is presented as a possible outcome should the value of the selected public lands equal the value of the offered Tribal lands as determined through the land value equalization process described in section 2.2, it is not likely. Under scenario three, management authority for segments of the following trails would be transferred from the BLM to the Tribe: Jo Pond, Indian Potrero, Palm Canyon, Skyline, North Lykken, Araby, Berns, Garstin, Shannon, Thielman, and Wild Horse, totaling 9.7 miles in length. About 2.2 miles of social trails would also be transferred to the Tribe. The BLM would retain no authority to manage either official or social trails on the selected public lands once the exchange is complete.

Consistent with scenarios one and two, segments of the following official trails would be included in the transfer of Tribal lands to the BLM: Dunn Road Trail, Wild Horse, and East Fork

¹⁹ The temporary prohibition of dogs on certain public lands in the Santa Rosa Mountains, pending completion of a comprehensive trails management plan as part of the Coachella Valley Multiple Species Habitat Conservation Plan, includes section 36, T.5S. R.4E. (BLM: 65 FR 3473, January 21, 2000). The BLM has yet to issue its decision regarding applicability of this trails management plan to federal lands.

Loop, totaling 2.4 miles. Management authority for an undetermined extent of unnamed social trails would also be transferred to the BLM.

Table 4.2.1.3: Scenario three, changes to management authority for official trails

BLM to Tribe	BLM to Tribe	Retained by BLM	Retained by BLM	Tribe to BLM	Tribe to BLM
Trail	Miles	Trail	Miles	Trail	Miles
Jo Pond	1.3			Dunn Rd Tr	0.6
I. Potrero	1.0			Wild Horse	1.1
P. Canyon	1.2			E Fork Loop	0.7
Skyline	1.8				
N. Lykken	0.1				
Araby	0.3				
Berns	1.0				
Garstin	1.0				
Shannon	0.9				
Thielman	0.3				
Wild Horse	0.8				
Total	9.7	Total	0.0	Total	2.4

Direct effects

Use of “official” trails:

Under scenario one, the only official trail on public lands affected by the proposed land exchange is the Jo Pond. Under scenario two, segments of the Indian Potrero and Palm Canyon Trails are additionally affected. Under scenario three, all trails on the selected public lands are affected.

Jo Pond, Indian Potrero, and Palm Canyon Trails

Direct effects of the proposed land exchange regarding recreational activities on the Jo Pond, Indian Potrero, and Palm Canyon Trails are the same as described for scenarios one and two.

Skyline and North Lykken Trails

The Cactus to Clouds Trail, the majority of which is comprised of the Skyline Trail, is the only trail on the selected public lands that possesses widespread national recognition. In the May 2005 edition of *Backpacker* magazine, the Cactus to Clouds is described as one of America’s ten hardest day hikes, connecting the valley floor in Palm Springs at about 400 feet elevation with the 10,834-foot summit of Mount San Jacinto (Lanza 2005). Among other listings, it is included on the *National Geographic Adventure* website as one of an author’s top ten favorite hikes (Skurka 2013).

Beginning at its intersection with the North Lykken Trail in section 15, T.4S. R.4E., the Skyline traverses multiple jurisdictions as it ascends the eastern flank of the San Jacinto Mountains, ending in Long Valley near the Mountain Station of the Palm Springs Aerial Tramway. In addition to crossing the selected public lands, it crosses

lands managed by the following entities: Agua Caliente Band of Cahuilla Indians, City of Palm Springs, California Department of Parks and Recreation, Coachella Valley Mountains Conservancy, and a private landowner. The 1.8-mile segment of the trail on public lands and four segments on Tribal lands (totaling about 2.5 miles) are sandwiched between segments on city and state lands.

The Skyline Trail passes through more jurisdictions than any of the other twelve trails directly affected by the proposed land exchange; the Palm Canyon Trail runs a close second. Hence, the extent to which management prescriptions are consistent or inconsistent between jurisdictions directly affects public access to the trail. An examination of how these jurisdictions manage access to the Skyline Trail, therefore, is important for understanding the effects of the land exchange on recreation resources, though the focus of this discussion will be on the BLM and the Tribe (as parties to the land exchange), and the City of Palm Springs and California Department of Parks and Recreation (specifically Mt. San Jacinto State Park and Wilderness) as the trail's "bookend" jurisdictions.²⁰

Hiking and horseback riding on the Skyline Trail are currently allowed by all jurisdictions without temporal restrictions or imposition of fees,²¹ though equestrian use of the trail is infrequent, if at all. Mountain biking, while allowed on the lower reaches of the trail where it traverses City of Palm Springs and BLM lands, is prohibited on the upper segments where located on Tribal and state lands, though anecdotal evidence suggests little, if any, mountain bike use of this trail occurs. Transfer of section 16, T.4S. R.4E., to the Tribe would expand its management authority for the Skyline Trail from 2.5 miles to 4.3 miles (an increase of 72 percent), or from about 33 percent to 57 percent of this 7.6-mile trail. How would such change manifest itself with respect to public access? In essence, not at all.

As has been reiterated several times in this draft EIS, the Tribe has committed to manage trails on the acquired public lands in the same manner as the BLM (ACBCI 2012). Changing or curtailing public access to these trails is not feasible or practical since no trailheads occur on the exchange lands, which substantially limits a jurisdiction's ability to control access or charge fees, a circumstance that may be exacerbated by the existence of multiple access points to some trails. Consistent with this commitment is the manner in which the Tribe manages segments of the Skyline Trail on Tribal lands. The Tribe, at any time, could have pursued actions to limit public access to the Skyline Trail by restricting hours or seasons of use or charging a fee for the segments it manages, but the Tribe has not done so, whether for lack of feasibility or practicality, or for other reasons. Acquisition of section 16 would not change circumstances in this regard; Tribal segments of the trail would continue to be "bookended" by non-Tribal lands, thereby limiting the Tribe's options to effectively control public access. Therefore, such acquisition would have little to no effect on

²⁰ Trails in sections 16 and 36, T.4S. R.4E., including the Skyline Trail, were of most concern to participants in the scoping process that was conducted in 2012 to identify issues to be addressed by the EIS. These concerns revolved around the Tribe's management of trails in these sections upon their acquisition, principally with respect to limitations on access and potential for fees.

²¹ A common practice for hikers ascending the Skyline Trail is to return to the valley floor via the Palm Springs Aerial Tramway for which a fee is charged. Far fewer hikers descend the Skyline Trail.

public access to the Skyline Trail, even if the Tribe were to prohibit mountain biking on the acquired segments for purposes of management consistency with the segments it now manages—such activity, if it occurs at all, would be further limited only in how far an individual could bicycle up the trail from its intersection with the North Lykken; travel by bicycle on the current Tribal segments and into Mt. San Jacinto State Park and Wilderness is already prohibited at the trail’s western extension.

The only other official trail segment on the selected public lands in section 16 comprises part of the North Lykken Trail, though this segment is only about 0.1 mile in length. The majority of the trail (about 3.8 miles) is within the City of Palm Springs’ jurisdiction, with a considerably shorter segment (about 1/4 mile) on Tribal lands. As with the Skyline Trail, a change in jurisdiction managing the 0.1-mile segment would have little to no effect on public access, whether for hiking, mountain biking, or horseback riding, the latter two of which occur at very low to nonexistent levels.²² Again, the Tribe’s commitment to manage trails on the acquired public lands in the same manner as the BLM punctuates this assessment of little to no effect.

Araby, Berns, Garstin, Shannon, Thielman, and Wild Horse Trails

Segments of trails on the selected public lands in section 36, T.4S. R.4E.—Araby, Berns, Garstin, Shannon, Thielman, and Wild Horse—facilitate public access for non-motorized recreation in what is often described as the “Murray Hill trail complex.” Whether these trails are utilized for “out and back” jaunts on individual trails, for loop opportunities, or to access a host of other trails and areas in the Santa Rosa Mountains, they provide important recreation experiences for hikers, runners, mountain bikers, and horseback riders. The only currently authorized access for mountain bikers into this trail complex from west is via the Thielman Trail located, in part, in section 36. Hence, considerable concern about future management of these trails upon their acquisition by the Tribe was expressed during the public scoping process in 2012 (see Appendix I, scoping report).

The City of Palm Springs manages trailheads for the Garstin and Araby Trails, while the Thielman trailhead is located on public lands in section 1, T.5S. R.4E.; these lands are not among those selected for the proposed land exchange. Therefore, as a consequence of the exchange the Tribe would gain no control over access to these and other trails—including the Berns, Shannon, and Wild Horse Trails—that originates at the three trailheads. As previously discussed, this circumstance largely dictates the extent to which the BLM or the Tribe can effectively impose limitations on access that are inconsistent with the management of trailheads and associated trail segments by a third party.

For example, whereas access for hiking and horseback riding is not restricted at the Garstin and Araby trailheads, nor on any of the trails in the Murray Hill complex whether managed by the BLM or under jurisdiction of the city, the same cannot be said regarding mountain biking. In accordance with rules promulgated by the City of Palm Springs’ Parks and Recreation Commission, as authorized by municipal code

²² The North Lykken Trail is characterized as being of “extreme” technical difficulty for mountain bikers. “This is a tough ride and most riders would probably rather walk this route than ride it.” (Maag 1996)

12.72.030 (City of Palm Springs on-line posting), bicycles are prohibited on the Araby, Berns, Garstin, and Shannon Trails, but only on nonfederal segments of them where the city has jurisdiction;²³ conversely, bicycles are currently allowed on the BLM-managed segments of these trails. However, it is anticipated that the BLM, should it retain section 36, would change its management of the federal land segments of the Araby, Garstin, and Shannon Trails to coincide with the city's prohibition of bicycles, consistent with management prescriptions established in the trails management plan element of the Coachella Valley Multiple Species Habitat Conservation Plan (CVAG 2007). On the other hand, since almost the entirety of the Berns Trail is located on the selected public lands and there are sufficient locations along the trail to allow for safe passage of equestrians and mountain bikers should they meet, it is the BLM's intent to continue the allowance for bicycle access; the BLM would work with the city to rescind its bicycle prohibition for the extremely small segment of this trail within the city's jurisdiction.

To reiterate yet once again because it is vital to the analysis of potential impacts resulting from the proposed land exchange, the Tribe has committed to manage trails on the acquired public lands in the same manner as the BLM (ACBCI 2012). It can be reasonably assumed, therefore, that the BLM's intended prohibition of bicycles on the public land segments of the Araby, Garstin, and Shannon Trails would be implemented by the Tribe should it acquire section 36; this would be consistent with managing trails on the acquired public lands in the same manner as the BLM. Further, such management would also result in continuation of unrestricted, free public access to the official trails, including bicycle access on the Thielman Trail, until such time that changes in resource conditions warrant modifications to trail management prescriptions, including trail closures if necessary; these modifications could occur under either BLM or Tribal management. However, consistent with the BLM's cooperative agreement with the Tribe, the two parties would cooperatively address critical resource issues when they arise in order to provide for more consistent, effective, and collaborative management of public and Tribal lands, including the manner in which public access to trails is governed (BLM and ACBCI 1999a).

To summarize, effects of the proposed land exchange on public access to official trails in section 36, T.4S. R.4E., would be imperceptible. Opportunities for non-motorized recreation would not change. Under scenario three (which is "additive" with respect to scenarios one and two), overall changes to public access would be minor with respect to the use of official trails.

Use of "social" trails:

Several social trails have been inventoried on the selected public lands in section 36, T.4S. R.4E., including a connector trail linking the Berns and Wild Horse Trails, a connector trail and associated spur linking the Wild Horse and Goat Trails, and small spur off the Berns Trail to a prominence overlooking the City of Palm Springs,

²³ The city's prohibition of bicycles on certain trails under its jurisdiction addresses potential safety concerns associated with horses and bicycles using steep, narrow trails at the same time. Along substantial stretches of these trails, there is not sufficient space for either a horse or bicycle to safely get off the trail in order to allow the other to pass.

totaling about 0.8 mile in length. Cumulatively under scenario three, total length of affected social trails is 2.2 miles.

As previously discussed, travel on social trails would not typically be permitted since non-motorized recreation on Tribal lands is allowed on designated trails only in accordance with the THCP. However, the Tribe's commitment to manage trails on the acquired lands in the same manner as the BLM may result in a different outcome in section 36 than for social trails described under scenarios one and two. Under BLM management, the agency would carefully consider potential legitimization of these social trails given the connectivity they provide, particularly the longtime used trail connecting the Wild Horse and Goat Trails, a majority of the latter occurring on private lands in the adjacent section (sec. 31, T.4S. R.5E). Since no other trails in this area provide the same function, their removal could result in other social trails being established, thereby potentially increasing impacts to resource values. Should the Tribe likewise address these social trails, they could become official trails. Consequently, effects of the acquisition of section 36 by the Tribe would be imperceptible.

Cross-country travel:

Under scenario three, opportunities for cross-country travel may be further diminished (compared to scenario two) upon the Tribe's acquisition of BLM Category 1, 2, and 3 lands. Whereas cross-country travel is currently allowed on the 5,799 acres of selected public lands (4,015 acres from scenario one, 641 acres from scenario two, and 1,143 acres that come into play under scenario three), such travel would be prohibited upon their acquisition by the Tribe, consistent with provisions of the THCP. The greatest potential impact to opportunities for cross-country travel under this scenario would occur in the southeast quarter of section 36 (T.4S. R.4E.) where the topography is considerably less steep and rugged than other public lands in this section, similar to the landscape in the eastern half of section 36, T.5S. R.4E. as described under scenario two. Nevertheless, most of the selected public lands—those in BLM Category 1—occur on the east flank of the San Jacinto Mountains where topography substantially constrains access for hikers. Again, whether the loss of opportunities for cross-country travel consequent to the proposed land exchange would result in adverse impacts to cross-country travel on the BLM Category 1, 2, and 3 lands is unknown given the lack of empirical data for this type of activity, but such impacts are anticipated to be minor.

Consistent with scenarios one and two, the analysis regarding potential effects of the proposed land exchange on opportunities for cross-country travel under scenario three is conditional, dependent on a separate decision to be made by the BLM regarding this activity (see discussion for scenario one).

Access with dogs:

In this scenario, the Tribe would acquire public lands in sections 16 and 36, T.4S. R.4E. (in addition to BLM Category 1 and 2 lands). The BLM currently allows leashed dogs on public lands in section 16, but prohibits such access in section 36 (BLM: 65 FR 3473, January 21, 2000). As previously indicated, the Tribe prohibits dogs on all lands it manages in the project area. As usually occurs with respect to

trails that cross multiple jurisdictions—such as the Skyline, North Lykken, Araby, Berns, Garstin, Shannon, and Wild Horse Trails, which traverse sections 16 or 36—the most restrictive rules of a particular jurisdiction govern access to the trail in its entirety. The circumstance regarding access with dogs is no exception.

The Skyline Trail traverses public lands in section 16 where entry with dogs is currently restricted only by a leash requirement. At lower elevations to the east where it crosses lands under jurisdiction of the City of Palm Springs, the same leash requirement applies per municipal code 10.28.010 (City of Palm Springs, on-line posting). At upper elevations where the trail enters Tribal lands or the Mt. San Jacinto State Park and Wilderness, dogs are prohibited. Hence, in this instance, dogs could currently accompany trail users from the trailhead in Palm Springs to where the trail first enters Tribal lands in section 21, T.4S. R.4E. On the other hand, in accordance with the trails management plan element of the CVMSHCP, dogs are prohibited in essential habitat for Peninsular bighorn sheep, including areas under the city's jurisdiction (CVAG 2007), though municipal codes have not yet been aligned with the CVMSHCP in this regard. Consistent with this aspect of the trails management plan, the BLM may render a separate decision to likewise prohibit dogs on public lands in section 16. If the city were to align its municipal codes accordingly, then the Tribe's acquisition of section 16 would have no effect on access with dogs—whether it extended its dog prohibition to the acquired lands or continued the BLM's current temporary allowance for dogs—since Tribal lands would be sandwiched between other jurisdictional lands wherein dogs are prohibited. If the BLM were to render a separate decision prohibiting dogs on public lands in section 16 in advance of the land exchange being completed, the outcome would be the same. The only reduction of opportunities to use the Skyline Trail accompanied by a dog would occur if the city did not align its municipal codes with the CVMSHCP and the Tribe extended its prohibition to the acquired lands. In this circumstance, the public would lose about 1.8 miles of the Skyline Trail for hiking with a dog.

A similar management scenario regarding access with dogs occurs for the North Lykken Trail, though in this case access with dogs is principally determined by alignment of the city's municipal codes with the CVMSHCP. Current or future restrictions on access with dogs on the 0.1-mile segment of trail where it crosses public lands, whether the BLM retains section 16 or transfers it to the Tribe, will have little effect.

Regarding access with dogs to trails in section 36, the circumstances are different from those in section 16, but only in that the BLM currently prohibits dogs on these public lands (65 FR 3473). If the Tribe acquires the selected public lands in section 36 and extends its prohibition of dogs thereto, there would be no change in opportunities for hiking with dogs. If the BLM retains public lands in section 36 and issues its separate decision to continue the prohibition, consistent with the trails management plan element of the CVMSHCP, again there would be no change for such opportunities.

Indirect effects

While it may appear that a future prohibition of bicycles on segments of the Araby, Garstin, and Shannon Trails under Tribal management is a consequence of the

proposed land exchange and thereby constitutes an indirect impact since it would occur at a later time, such is not truly the case. As described above, the prohibition of bicycles on certain trail segments is likely to occur even if the BLM retains section 36, T.4S., R.4E., in which these trails are located. In other words, the possible prohibition of bicycles as described would not be a result, whether direct or indirect, of the proposed land exchange; it may occur whether the land exchange occurs or not.

On the other hand, it may be perceived that an indirect effect of the proposed land exchange could be to reduce possible future opportunities for hiking with dogs in the project area should the Tribe acquire public lands in section 36 and prohibit dogs on Tribal lands as occurs elsewhere. But such may not be the case. Providing opportunities to hike with dogs on trails in this area is contingent on development of the Garstin to Thielman connector trail and allowing hikers with dogs to use this connector trail in conjunction with the lower segments of the Garstin and Thielman Trails.²⁴ While the southern segment of the proposed trail occurs on public lands in section 1, T.5S. R.4E. (which are not selected for the proposed land exchange), the northern segment is located on public lands in section 36, T.4S. R.4E., which may be acquired by the Tribe under scenario three. But new trails are not Covered Activities under the THCP, meaning that the proposed Garstin to Thielman connector trail may not be deemed consistent with provisions of the THCP (ACBCI 2010). The THCP in this respect is consistent with a finding in the Indian Canyons Master Plan that expansion of the trail system in the Indian Canyons and surrounding lands is not considered necessary at this time (ACBCI 2008).

However, the ICMP does not prohibit the development of new trails on Tribal lands. Instead it indicates that future proposals for new trails on Tribal lands connecting with trails on adjacent public lands should consider management prescriptions established through the trails management plan for the Santa Rosa and San Jacinto Mountains (an element of the CVMSHCP). Since the proposed trail would provide connectivity to adjacent public lands and use of the trail by hikers with leashed dogs is prescribed in the trails management plan element of the CVMSHCP, it is reasonable to conclude that upon acquisition of public lands in section 36 by the Tribe, construction of the Garstin to Thielman perimeter trails and its use by hikers with dogs may be approved by the Tribe.

²⁴ The proposed Garstin to Thielman connector trail, upon construction, is identified as a Covered Activity under the trails management plan element of the CVMSHCP provided that research results and analyses of environmental impacts under the NEPA and CEQA, as applicable, indicate the proposed trail would not adversely impact Peninsular bighorn sheep. “Covered Activities” are those for which take authorization is provided under section 10(a) of the federal Endangered Species Act. The plan further provides that a dog use trail incorporating the lower segments of the Garstin and Thielman trails, along with the connector trail itself, would be established once the connector is constructed. (CVAG 2007) However, Covered Activity status under the CVMSHCP applies only to projects on nonfederal lands. When the plan was approved in 2008, part of the proposed connector trail was located on private lands subject to its terms and conditions; the other part was located on BLM lands in section 36, T.4S. R.4E. In 2010, the BLM acquired the affected private lands, which brought the proposed project completely under BLM jurisdiction.

4.2.1.2 Preferred Alternative

Scenario four:

This scenario represents the preferred alternative whereupon its implementation would transfer management authority for segments of the following trails from the BLM to the Tribe: Jo Pond, Indian Potrero, Palm Canyon, Skyline, and North Lykken, totaling 5.4 miles in length. Segments of the Araby, Berns, Garstin, Shannon, Thielman, and Wild Horse Trails, totaling 4.3 miles in length, would continue to be managed by the BLM. About 1.5 miles of social trails would also be transferred to the Tribe; the BLM would continue to manage about 0.7 mile of them. Of the total mileage for official trails located on the selected public lands (9.7 miles), 55.7 percent would be transferred to the Tribe; 68.2 percent of the social trails would be transferred to the Tribe in this scenario.

Consistent with scenarios one, two, and three, segments of the following official trails would be included in the transfer of Tribal lands to the BLM: Dunn Road Trail, Wild Horse, and East Fork Loop, totaling 2.4 miles. Management authority for an undetermined extent of unnamed social trails would also be transferred to the BLM.

Table 4.2.1.4: Preferred alternative (scenario four), changes to management authority for official trails

BLM to Tribe	BLM to Tribe	Retained by BLM	Retained by BLM	Tribe to BLM	Tribe to BLM
Trail	Miles	Trail	Miles	Trail	Miles
Jo Pond	1.3	Araby	0.3	Dunn Rd Tr	0.6
I. Potrero	1.0	Berns	1.0	Wild Horse	1.1
P. Canyon	1.2	Garstin	1.0	E Fork Loop	0.7
Skyline	1.8	Shannon	0.9		
N. Lykken	0.1	Thielman	0.3		
		Wild Horse	0.8		
Total	5.4	Total	4.3	Total	2.4

Direct effects

Use of “official” trails:

Under scenario one, the only official trail on public lands affected by the proposed land exchange is the Jo Pond. Under scenario two, segments of the Indian Potrero and Palm Canyon Trails are additionally affected. Under scenario three, all trails on the selected public lands are affected. Scenario four replicates scenario three, except trails in section 36, T.4S. R.4E.—Araby, Berns, Garstin, Shannon, Thielman, and Wild Horse—would be excluded from the exchange and therefore not affected by it.

Jo Pond, Indian Potrero, Palm Canyon, Skyline, and North Lykken Trails

Direct effects of the proposed land exchange regarding recreational activities on the Jo Pond, Indian Potrero, Palm Canyon, Skyline, and North Lykken Trails are the same as described for scenarios one, two, and three.

Araby, Berns, Garstin, Shannon, Thielman, and Wild Horse Trails

Under the preferred alternative (scenario four), jurisdiction for managing segments of the Araby, Berns, Garstin, Shannon, Thielman, and Wild Horse Trails where they occur on public lands would be retained by the BLM. Since the Tribe committed to manage trails in the same manner as the BLM upon their acquisition (ACBCI 2012), direct effects of the preferred alternative are the same as described for scenario three. In summary, (1) hikers and horseback riders would continue to have unrestricted access to these trails unless substantial changes in resource conditions prompt modifications to management prescriptions; (2) mountain bikers would continue to have unrestricted access to the Thielman and Wild Horse Trails where they cross public lands (again, unless changes in resource conditions warrant limitations on this recreational activity); (3) actions to close public land segments of the Araby, Garstin, and Shannon Trails to bicycle use would be pursued for consistency with current restrictions imposed by the City of Palm Springs for nonfederal segments of these trails; and (4) mountain bike use of the public land segment of the Berns Trail would continue; the BLM would work with the City of Palm Springs to rescind its prohibition on this activity affecting the small segment of trail on nonfederal lands.

Use of “social” trails:

Treatment of social trails under the preferred alternative would be the same as described for scenario three, including the manner in which social trails in section 36, T.4S. R.4E., are affected. In summary, careful consideration would be given to legitimizing certain social trails—such as a connector trail linking the Berns and Wild Horse Trails, a connector and associate spur trail linking the Wild Horse and Goat Trails, and a small spur off the Berns Trail to an overlook—thereby making them *official* (in lieu of removing them) to ensure connectivity of trails and avoid creation of new social trails.

Cross-country travel:

As previously discussed, no empirical data are available regarding occurrences of cross-country travel in the project area to suggest whether changes to its management—imposition of a year-round or seasonal restriction, whether by the Tribe or the BLM—or continuation of the cross-country allowance would affect actual use. In other words, while *opportunities* would be diminished by a prohibition of such travel when compared to allowing its continuance, the effects of a prohibition are limited if few people actually engage in such activity. Further (consistent with scenarios one through three), the analysis regarding potential effects of the preferred alternative on opportunities for cross-country travel is conditional. Whereas cross-country travel would be prohibited on 5,291 acres of the selected public lands upon their acquisition by the Tribe in accordance with the THCP, it doesn’t mean that such travel would necessarily continue to be allowed on the 508 acres of public lands retained by the BLM in section 36, T.4S. R.4E., under scenario four.

In accordance with the trails management plan element of the Coachella Valley Multiple Species Habitat Conservation Plan, cross-country travel on nonfederal lands subject to the trails management plan is prohibited from January 1 through September 30, and allowed from October 1 through December 31 (CVAG 2007).

Restrictions on off-trail travel on public lands in the Santa Rosa and San Jacinto Mountains, including such lands in section 36, will be determined through a separate decision issued by the BLM. Whether restrictions on cross-country travel will be consistent with the seasonal limitation under the trails management plan has not been determined. Therefore, effects on cross-country travel from implementation of the preferred alternative are dependent on the extent to which the BLM allows or restricts such travel on public lands in the project area through a separate decision process. In essence, the analyses of effects provided for scenarios one through three are applicable to the preferred alternative.

Access with dogs:

Direct effects of the proposed land exchange regarding access with dogs on the Jo Pond, Indian Potrero, Palm Canyon, Skyline, and North Lykken Trails are the same as described for scenarios one, two, and three. Regarding access with dogs to trails on public lands in section 36, T.4S. R.4E., there would be no change for such opportunities should the BLM issue a separate decision to continue the current temporary prohibition of dogs (BLM: 65 FR 3473, January 21, 2000), consistent with the trails management plan element of the CVMSHCP.

Indirect effects

Compared to the proposed action should the Tribe's acquisition of public lands include section 36, T.4S. R.4E., as a result of the land value equalization process, implementation of the preferred alternative may enhance future opportunities for hiking with dogs in the project area, contingent on development of the Garstin to Thielman connector trail and allowing hikers with dogs to use this connector trail in conjunction with the lower segments of the Garstin and Thielman Trails. However, development of this connector trail and its use by those with dogs may be approved whether the Tribe acquires public lands in section 36 or the BLM retains them (see discussion in this regard under scenario three).

4.2.1.3 No Action Alternative

Under the no action alternative, management authority for segments of all official trails on the selected public lands, totaling about 9.7 miles, as well as all social trails on public lands, totaling about 2.2 miles, would be retained by the BLM. Segments of the Dunn Road Trail, Wild Horse Trail, and East Fork Loop Trail, totaling 2.4 miles, as well as an undetermined extent of unnamed social trails, would be retained by the Tribe in sections 7, 19, and 20, T.5S. R.5E.

Table 4.2.1.5: No action alternative management authority for official trails

Transferred	Transferred	Retained by BLM	Retained by BLM	Retained by Tribe	Retained by Tribe
Trail	Miles	Trail	Miles	Trail	Miles
		Jo Pond	1.3	Dunn Rd Tr	0.6
		I. Potrero	1.0	Wild Horse	1.1
		P. Canyon	1.2	E Fork Loop	0.7
		Skyline	1.8		
		N. Lykken	0.1		
		Araby	0.3		
		Berns	1.0		
		Garstin	1.0		
		Shannon	0.9		
		Thielman	0.3		
		Wild Horse	0.8		
Total	0.0	Total	9.7	Total	2.4

Direct effects

Use of “official” trails:

No official trails would be directly affected by adoption of the no action alternative. Recreational use of trail segments on the selected public lands would be subject to applicable statutes, regulations, policies, and plan decisions; substantial changes in resource conditions could prompt modifications to current management prescriptions.

Direct effects of the no action alternative regarding recreational activities on public land segments of the Jo Pond, Indian Potrero, Palm Canyon, Skyline, North Lykken, Araby, Berns, Garstin, Shannon, Thielman, and Wild Horse Trails are the same as described for scenarios one, two, and three of the proposed action, as well as the preferred alternative, i.e., whether managed by the BLM or the Tribe, access by hikers, mountain bikers, and horseback riders to these trails is largely the same.

It is anticipated that the Tribe’s management of segments of the Dunn Road Trail, Wild Horse Trail, and East Fork Loop Trail on Tribal lands would have no direct effect on public access for recreational purposes due to connectivity of these trail segments with others on adjacent public lands, the lack of trailheads on Tribal lands where access to them could be managed, and the cooperative management of BLM and Tribal lands as expressed in the agreement of 1999 whereby opportunities for program development would be coordinated between the BLM and the Tribe (BLM and ACBCI 1999a).

Use of “social” trails:

Treatment of social trails on the selected public lands under the no action alternative would be the same as described for scenario three, including the manner in which social trails in section 36, T.4S. R.4E., are affected. Public access to social trails on the offered Tribal lands, however, could be affected, though coordination between the BLM and the Tribe for management of the trail system outside the Agua Caliente Indian Reservation would foster careful consideration to legitimize certain social

trails that may provide important linkages, such as the social trail connecting the Dunn Road with the Wild Horse Trail in section 7, T.5S. R.5E.

Cross-country travel:

Currently, cross-country travel is allowed on the 5,799 acres of selected public lands, whether on foot, bicycle, or horseback. As previously described, restrictions on off-trail travel on public lands in the Santa Rosa and San Jacinto Mountains will be determined through a separate decision issued by the BLM. Whether restrictions on cross-country travel will be consistent with the seasonal limitation under the trails management plan element of the CVMSHCP has not been determined. Therefore, effects on cross-country travel from implementation of the proposed action, preferred alternative, or no action alternative are dependent on the extent to which the BLM may allow or restrict such travel on public lands in the project area through the separate decision-making process. Hence, analyses of effects provided for scenarios one through four are applicable to the no action alternative.

Cross-country travel on the 1,470 acres of offered Tribal lands, however, would be prohibited under the no action alternative. Whether this would create management challenges due to inconsistent prescriptions between the adjacent BLM and Tribal lands depends on the BLM's forthcoming separate decision with respect to cross-country travel and the extent to which opportunities for such travel are currently being taken advantage of by individuals. Given the steep rugged terrain on the east slope of the San Jacinto Mountains, thereby constraining off-trail travel, the current inconsistency of the BLM and Tribal management in this respect does not appear to have been problematic, i.e., adverse impacts to resource values have not been apparent. On the other hand, where the terrain is less limiting east of Palm Canyon, inconsistencies in managing cross-country travel might not only affect resource values on the adjacent jurisdictional lands as unauthorized new social trails are established or soils and vegetation are impacted, it would create confusion among recreationists regarding off-trail travel opportunities.

Access with dogs:

Direct effects of the proposed land exchange regarding access with dogs on the selected public lands are the same as described for the proposed action and preferred alternative. The Tribe's prohibition on access with dogs to the offered Tribal lands in sections 7, 19, and 20, T.5S. R.5E., would be continued under the no action alternative, consistent with the BLM's current temporary prohibition of dogs on the adjacent public lands east of Palm Canyon (BLM: 65 FR 3473, January 21, 2000).

Indirect effects

Consistent with the indirect effects described under the preferred alternative, implementation of the no action alternative may enhance future opportunities for hiking with dogs in the project area, contingent on development of the Garstin to Thielman connector trail in section 36, T.4S. R.4E., and section 1, T.5S., R.4E., and allowing hikers with dogs to use this connector trail in conjunction with the lower segments of the Garstin and Thielman Trails, though the enhancement of such

opportunities may also occur upon acquisition of public lands in section 36 by the Tribe.

4.2.1.4 Summary of effects to recreation resources

Use of “official” trails:

Table 4.2.1.6 summarizes opportunities described in section 4.2.1 for trail-based hiking, mountain biking, and horseback riding on the selected public lands and offered Tribal lands resulting from implementation of the proposed action, preferred alternative, and no action alternative. While the opportunity for hiking and horseback riding on official trails is constant among all alternatives—a total of 12.1 miles of trails would be available—opportunities for mountain biking vary among alternatives, the greatest opportunity being provided under scenario one of the proposed action and the no action alternative (8.6 miles), and the least opportunity being provided under the scenario three of the proposed action and the preferred alternative (5.8 miles).

Table 4.2.1.6: Summary of access opportunities to official trails on the selected public lands and offered Tribal lands by jurisdiction, in miles²⁵

	Proposed Action scenario 1	Proposed Action scenario 1	Proposed Action scenario 2	Proposed Action scenario 2	Proposed Action scenario 3	Proposed Action scenario 3	Pref. Alt	Pref. Alt	No Act. Alt ²⁶	No Act. Alt ²⁶
	BLM	Tribe	BLM	Tribe	BLM	Tribe	BLM	Tribe	BLM	Tribe
H	10.8	1.3	8.6	3.5	2.4	9.7	6.7	5.4	9.7	2.4
MB ²⁷	8.6	0.0	6.4	1.2	2.4	3.4	4.5	1.3	6.2	2.4
HR	10.8	1.3	8.6	3.5	2.4	9.7	6.7	5.4	9.7	2.4

H = hiking; MB = mountain biking; HR = horseback riding / Pref. Alt = Preferred Alternative; No Act. Alt = No Action Alternative

²⁵ Miles of trails available for hiking, mountain biking, and horseback riding on the selected public lands and offered Tribal lands upon implementation of the proposed action, preferred alternative, and no action alternative reflect access to official trails only (see Table 3.2.14.1: Trails on Exchange Lands). Whether social trails would be legitimized as official trails or removed depends on separate actions by the BLM and the Tribe irrespective of the proposed land exchange.

²⁶ The figure regarding access by mountain bikers on public lands under the no action alternative reflects anticipated closure of the Araby, Garstin, and Shannon Trails in section 36, T.4S. R.4E., to bicycles for consistency with rules promulgated by the City of Palm Springs’ Parks and Recreation Commission, as well as lack of access to the public land segment of the Jo Pond Trail given that bicycles are prohibited on the adjacent segments under Tribal jurisdiction (located in sections 22 and 28).

²⁷ The figures cited for scenarios 1, 2, and 3 of the proposed action and for the preferred alternative reflect the lack of access by mountain bikers to the Jo Pond Trail in section 21, T.5S. R.5E., given that bicycles are prohibited on adjacent segments under Tribal jurisdiction (sections 22 and 28). These figures also reflect anticipated closure of the Araby, Garstin, and Shannon Trails in section 36, T.4S. R.4E., to bicycles, whether by the BLM or the Tribe, for consistency with rules promulgated by the City of Palm Springs’ Parks and Recreation Commission. The figures cited for scenarios 2 and 3 of the proposed action, as well as the preferred alternative, reflect anticipated closure of the Indian Potrero Trail in section 36, T.5S. R.5E., to mountain bicycles (as a matter of practicality), but allowing bicyclists to continue use of the Palm Canyon Trail in this location. The figures cited for scenario 3 of the proposed action, as well as for the preferred alternative, reflect anticipated closure of the Skyline Trail in section 16, T.4S. R.4E., to mountain bicycles (as a matter of practicality), but allowing bicyclists to continue use of the North Lykken Trail in this location.

Use of “social” trails:

Whether the 2.9 miles of social trails on the selected public lands and offered Tribal lands would be legitimized as official trails or removed depends on separate actions by the BLM and the Tribe irrespective of the proposed land exchange. Therefore, a summary of effects by alternative in this regard is moot.

Cross-country travel:

Table 4.2.1.7 summarizes opportunities described in section 4.2.1 for cross-country travel on the selected public lands and offered Tribal lands resulting from implementation of the proposed action, preferred alternative, and no action alternative. The acreages provided in the table are based on current conditions whereby cross-country travel on the selected public lands is allowed; lands acquired from the Tribe would be managed in the same manner. As previously discussed, however, the BLM has not yet determined applicability of the trails management plan element of the CVMSHCP to public lands, including the seasonal cross-country travel prohibition. If the BLM through a separate decision-making process were to similarly prohibit cross-country travel, or geographically apply the prohibition in a different way, the figures provided in Table 4.2.1.7 would dramatically change. For instance, should a broadly-applied year-round prohibition of cross-country travel be implemented on public lands prior to conclusion of the land exchange, all figures in Table 4.2.1.7 for the BLM would be “0.0.” If the BLM implemented a cross-country travel prohibition on a portion of the retained and/or acquired lands, the figures in this table for the BLM would be between 1,470 acres and 5,799 acres. A seasonal prohibition of cross-country travel implemented by the BLM would further condition figures that populate Table 4.2.1.7. At this time, however, such potential modifications to the table are speculative; it is not anticipated that the BLM will issue a decision regarding the management of cross-country travel before the proposed land exchange is concluded.

Table 4.2.1.7: Summary of cross-country opportunities by jurisdiction, in acres

	Proposed Action scenario 1	Proposed Action scenario 1	Proposed Action scenario 2	Proposed Action scenario 2	Proposed Action scenario 3	Proposed Action scenario 3	Pref. Alt	Pref. Alt	No Act. Alt	No Act. Alt
	BLM	Tribe	BLM	Tribe	BLM	Tribe	BLM	Tribe	BLM	Tribe
CC	3,254	0.0	2,613	0.0	1,470	0.0	1,978	0.0	5,799	0.0

CC = cross-country / Pref. Alt = Preferred Alternative; No Act. Alt = No Action Alternative

Access with dogs:

Opportunities for accessing the selected public lands and offered Tribal lands with dogs, irrespective of the proposed land exchange, are limited. Under current conditions as established by the BLM (65 FR 3473, January 21, 2000), the only opportunities for such access occur on Category 1 public lands west of Palm Canyon—totaling 4,015 acres containing 1.3 miles of official trails (Jo Pond Trail only), though access with dogs to the Jo Pond Trail is precluded because of the dog prohibition on adjacent trail segments on Tribal lands—and section 16, T.4S. R.4E., of the Category 3 public lands, also west of Palm Canyon—totaling 635 acres with 1.9 miles of official trails (Skyline and North Lykken Trails). This circumstance, however, is likely to change, particularly if the City of Palm Springs aligns its municipal codes with management prescriptions set forth in the approved CVMSHCP which prohibit dogs in essential habitat for Peninsular bighorn sheep, thereby isolating the Skyline and North Lykken Trails in this location,

and if the BLM likewise broadly prohibits dogs in bighorn sheep habitat (with limited exceptions).

4.2.1.5 Unavoidable adverse effects to recreation resources

As required by 40 CFR § 1502.16, the discussion of environmental consequences shall include any adverse environmental effects which cannot be avoided should the proposal be implemented. For purposes of this analysis with respect to recreation resources, there are no unavoidable adverse effects for the following reasons: (1) As reiterated throughout this draft EIS, the Tribe has committed to managing official trails in the same manner as the BLM upon their acquisition (ACBCI 2012). (2) The treatment of social trails on the selected public lands and offered Tribal lands is largely similar: only those social trails that provide important linkages with other trails would be considered for designation as official trails instead of being removed. Other social trails provide little to no function for public access to the exchange lands. (3) Empirical data regarding magnitude, frequency, and location of cross-country travel are not available to ascertain whether limitations in this regard on public lands acquired by the Tribe would constitute a significant adverse effect. Further, the BLM's determination regarding applicability of the seasonal cross-country prohibition on nonfederal lands, as a prescription of the approved CVMSHCP (CVAG 2007), has not been made; hence, whether the Tribe's imposition of a cross-country prohibition on the acquired public lands would represent a change with respect to the BLM's forthcoming decision likewise cannot be made. (4) Opportunities for access with dogs to the selected public lands would continue to be unavailable should the BLM make permanent through the creation of a supplementary rule its temporary prohibition of dogs on public lands east of Palm Canyon (BLM: 65 FR 3473, January 21, 2000), and extend the prohibition to include public lands west of Palm Canyon.

4.2.1.6 Possible conflicts with other plans, policies, and controls for the affected area

As required by 40 CFR §§ 1502.16(c) and 1506.2(d), the environmental impact statement shall discuss any inconsistency of a proposed action with any approved state or local (and in the case of a reservation, Indian tribe) land use plans, policies, and controls for the area concerned, whether or not such plans, policies, or controls are federally sanctioned. Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law.

With respect to recreation resources, potential conflicts would primarily emanate from inconsistencies between (1) BLM and Tribal management of the selected public lands and offered Tribal lands upon exchange, and (2) management prescriptions set forth in the trails management plan element of the Coachella Valley Multiple Species Habitat Conservation Plan as it affects nonfederal and non-Tribal lands. Such inconsistencies mostly relate to the management of cross-country travel. Whereas the Tribe's prohibition of cross-country travel on the acquired BLM Category 1 lands would, from a practical perspective, be largely consistent with the seasonal prohibition (January 1 through September 30) on nonfederal lands (CVAG 2007)—except for last quarter of the calendar year, the restrictions would be identical; during the remainder of the year, the character of the terrain effectively limits opportunities for cross-country travel—it could create management challenges on the BLM Category 2 and 3 lands from October 1 through December 31 when cross-country travel is allowed on nonfederal lands located adjacent to the acquired public lands; these lands are more conducive to cross-country travel than the Category 1 lands. Because jurisdictional boundaries do not relate to topographic features, recreationists may not be aware when they have crossed the line where management prescriptions differ, potentially

establishing enforcement challenges. Further, the BLM has not determined applicability of the CVMSHCP's trails management plan to federal lands in the project area. If the BLM were to adopt a year-round prohibition of cross-country travel, while consistent with the Tribe's approach it would be inconsistent with the CVMSHCP. Conversely, if the BLM were to adopt a seasonal prohibition mirroring the CVMSHCP, it would be inconsistent with the Tribe's approach. If the BLM were to continue its current allowance for cross-country travel, it would be inconsistent with both the CVMSHCP and the Tribe's approach. While reconciliation of these differences could occur through amendment of each jurisdiction's respective plans, it would be difficult to effect at best, and perhaps unlikely.

Concerns have also been raised regarding potential conflict with the BLM's California Desert Conservation Area Plan Amendment for the Coachella Valley, specifically section 2.4.9: Land Tenure Exchange and Sale Criteria (BLM 2002a). According to the plan, land exchanges and sales may be considered if, in part, they would not divest of public domain lands in a manner which eliminates a significant public benefit. During the public scoping process in advance of preparing this draft EIS, the public expressed concern that the proposed land exchange would, in fact, eliminate such significant public benefit, particularly opportunities for non-motorized recreation on existing trails upon the transfer of jurisdiction to the Tribe (see section 1.4b(ii)). As described above in sections 4.2.1.1 (proposed action) and 4.2.1.2 (preferred alternative), public access to official trails upon the acquisition of public lands by the Tribe would have no direct impact; opportunities for hiking, mountain biking, and horseback riding would not change as a result of the land exchange.

4.2.1.7 Cumulative effects to recreation resources

The purpose of describing cumulative effects is to ensure that federal decision-makers consider the full range of consequences of the proposed action and alternatives (BLM 2008a). The Council on Environmental Quality's regulations define cumulative effects as the impact on the environment which results from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such actions (40 CFR § 1508.7).

As expressed by the U.S. Congress in 2000, the purpose for establishing the Monument, in addition to preserving a variety of nationally significant resources, was to secure now and for future generations the opportunity to recreate therein (section 2(b), Santa Rosa and San Jacinto Mountains National Monument Act, as amended). It is appropriate, therefore, to consider past, present, and reasonably foreseeable future actions with respect to how implementation of the proposed action or an alternative action would affect opportunities for non-motorized recreation within the Monument.

Ancestors of the Agua Caliente Band of Cahuilla Indians settled in the Palm Springs area centuries ago and developed complex communities in the project area (ACBCI, cultural history on-line posting). Since these prehistoric times, access to and use of trails in the Santa Rosa and San Jacinto Mountains have been important to the Cahuilla. "Even before the horse these trails were the footpaths of our people. We had many small villages in a vast area and these trails tied our people together. They were used for hunting, visiting, rituals and ceremonies." (Katherine Saubel, *from* Hubbard 1991).

In historic times as non-Indian visitation to and occupation of the Palm Springs area increased and non-motorized recreation flourished, there came a need to establish a trail system that could

accommodate this influx of hikers and horseback riders. “In the early days of the Desert Riders [established in 1931 as a social club], no trails were necessary; then the vast expanse of desert was theirs to use as they wished. But as more and more people flocked into the area, ... [and] as hikers crowded the mountain pathways, special trails had to be marked and maintained or horseback riding was doomed. So the Desert Riders added a serious function to their social pleasures; they would make, build, and maintain trails across the deserts and into the mountains.” (Hicks n.d.) Over time, the Desert Riders developed 28 trails, “many of them adaptations of, or improvements on, ancient trails used by Cahuilla Indians in their migratory hunting and gathering” (Patten 1995).

Constructing new trails, however, became increasingly challenging as residential and commercial development of the Palm Springs area grew; while some private landowners supported the use of trails on their property, “others were less tolerant” (Hicks n.d.). Nevertheless, a viable system of trails in the Santa Rosa and San Jacinto Mountains emerged, consisting largely of the trails used today, including those on the selected public lands and offered Tribal lands for the proposed land exchange.

But unfettered access to these trails became increasingly uncertain during the late 1990s and first half of the 2000s. The first inkling that non-motorized use of trails might be restricted on a broad scale occurred shortly before the Peninsular bighorn sheep was federally listed as an endangered population (USFWS: 63 FR 13134, March 18, 1998). On March 3, 1998, the BLM and the California Department of Fish and Game (now California Department of Fish and Wildlife) launched a program asking trail users to voluntarily avoid using certain trails during the bighorn sheep lambing season from January 1 through June 30.²⁸ Initially, the program focused on the following trails: Art Smith, Bear Creek Canyon, Boo Hoff, Carrizo Canyon, Cathedral Canyon, Guadalupe, and North Lykken Trails.

Through a settlement agreement reached in 2001 pursuant to a lawsuit filed against the BLM, the list of trails affected by what became known as the “voluntary trail avoidance program” was expanded to 11 trails: the seven trails listed above plus the Bear Creek Oasis, Clara Burgess, Dunn Road, and Morrow Trails. Additionally, a voluntary avoidance program was initiated to be effective from July 1 through September for the Art Smith, Guadalupe, Bear Creek Oasis, Dunn Road, and Carrizo Canyon Trails. As part of the settlement agreement, the BLM was also required to employ five “Sheep Ambassadors” whose role was to personally contact trail users on trails and at trailheads requesting compliance with the program. The Sheep Ambassadors were employed in this capacity during the 2001-2003 lambing seasons, though the voluntary trail avoidance program itself continued through late August 2010.²⁹

²⁸ The request for hikers and other trail users to voluntarily avoid using certain trails was first published in *The Desert Sun* on March 3, 1998. It was not until the following January, however, that the request to avoid using these trails during the lambing season was published on a weekly basis in the newspaper’s “Great Outdoors” section.

²⁹ The Center for Biological Diversity, et al. filed a lawsuit against the BLM on March 16, 2000, alleging a violation of the Endangered Species Act by failing to enter into formal consultation with the U.S. Fish and Wildlife Service on the effects of the adoption and implementation of the California Desert Conservation Area Plan, as amended, on threatened and endangered species (C-00-0927-WHA, U.S. District Court, Northern District of California). The parties agreed to enter into a settlement agreement to avoid unnecessary litigation or the need for an immediate injunction. Conditions of the settlement agreement, which required the BLM to continue implementing the voluntary trail avoidance program, terminated upon approval of the California Desert Conservation Area Plan Amendment for the Coachella

Following the BLM's and CDFG's initiation of the Voluntary Trail Avoidance Program, the planning process for developing a trails management plan as an element of the Coachella Valley Multiple Species Habitat Conservation Plan was launched in 1999. The draft CVMSHCP released in 2004 for public review and comment would impose potential long-term restrictions (pending down-listing or delisting of Peninsular bighorn sheep) on certain trails in the Santa Rosa and San Jacinto Mountains, seasonally limiting use on the following nine trails or trail segments by allowing no more than 2,300 individuals and 50 groups, through the issuance of permits, to access them from January 15 through June 30 each year: Art Smith, Bear Creek Canyon (segment), Bear Creek Oasis, Boo Hoff (segment), Cathedral Canyon (segment), Clara Burgess, Dunn Road (segment), North Lykken (segment), and Skyline Trails (CVAG 2004). These proposed restrictions were intended to reduce potential conflicts between trail users and Peninsular bighorn sheep during the lambing season, consistent with the recovery plan for this population of bighorn sheep (USFWS 2000). The draft CVMSHCP also established a seasonal voluntary trail avoidance program effective January 15 through June 30 for the following trails or trail segments: Hahn Buena Vista, Goat (segments), Eagle Canyon (segment), Mirage (segment), Schey, and Guadalupe Trails.

In response to public comments and upon further consideration, however, the approved CVMSHCP rejected this precautionary approach to managing trail use in favor of adaptive management whereby the emphasis would be placed on research to ascertain whether non-motorized recreation has a population-level effect on Peninsular bighorn sheep (CVAG 2007); trail use restrictions, including voluntary avoidance, were not approved. On the other hand, closure of a segment of the Art Smith Trail (between its intersection with the Hopalong Cassidy Trail and Dunn Road), a segment of the Bear Creek Canyon Trail (south of its intersection with the Bear Creek Oasis Trail), and the Bear Creek Oasis Trail in its entirety during the "hot season" from June 15 through September 30 was incorporated in the approved plan, the intent being to ensure Peninsular bighorn sheep and other wildlife would not be impeded in their access to water sources (CVAG 2007). Additionally, public access to trails in Carrizo and Dead Indian Canyons is prohibited from January 1 through September 30 to minimize potential disturbances to a bighorn sheep ewe subgroup from recreational activities; these were decisions made by the CDFG (now CDFW) and BLM in 2005, separate from the trails management planning process for the CVMSHCP.

It should be noted that access with bicycles has been restricted to a greater extent in the Santa Rosa and San Jacinto Mountains than hiking and horseback riding:

Valley on December 27, 2002. However, terms and conditions of biological opinion FWS-ERIV/IMP-2810.2, *Endangered Species Consultation on the Effects of the California Desert Conservation Area Plan on Peninsular Bighorn Sheep, Riverside and Imperial Counties, California*, required that implementation of the voluntary trail avoidance program be continued from January 1 through June 30 for the following trails: Art Smith, Bear Creek Canyon, Bear Creek Oasis, Boo Hoff (except the link between La Quinta Cove and Morrow Trail), Cathedral Canyon, Clara Burgess, Dunn Road, Guadalupe, North Lykken, and Skyline Trails. Further, these terms and conditions required continuation of the voluntary trail avoidance program from July 1 through September 30 for portions of the following trails within 1/4 mile of identified water sources: Art Smith, Bear Creek Canyon, Bear Creek Oasis, Boo Hoff, Dunn Road, and Guadalupe Trails. (USFWS 2002b) Upon revision of this biological opinion and replacement by FWS-ERIV/IMP-10B0673-10F0935, *Reinitiation of Formal Consultation on the Effects of the California Desert Conservation Area Plan, as amended, on Peninsular Bighorn Sheep, Riverside and Imperial Counties, California*, the voluntary trail avoidance program was terminated, effective August 30, 2010 (USFWS 2010a).

- Upon establishment of the San Jacinto Wilderness through the Wilderness Act of 1964 (and expanded by the California Wilderness Act of 1984) and the Santa Rosa Wilderness through the California Wilderness Act of 1984 (and expanded by the California Desert Protection Act of 1994), bicycles were statutorily prohibited on over 100,000 acres of federal lands (BLM and USFS 2003).³⁰ Should the U.S. Congress establish a new wilderness area on National Forest System lands adjacent to Palm Canyon (“Pyramid Peak A”) as recommended in the proposed Southern California National Forests Land Management Plan Amendment, bicycle access to the Palm Canyon, Oak Canyon, and Live Oak Canyon Trails may be similarly affected (Forest Service 2013).
- In 1992, the City of Palm Springs’ Parks and Recreation Commission prohibited bicycles on segments of the following trails under its jurisdiction: Araby, Berns, Garstin, Henderson, Picnic Table, Shannon, and South Lykken Trails. The BLM (or the Tribe depending on the outcome of the proposed land exchange) may prohibit bicycles on the federal land segments of these same trails to provide for consistent management in this regard, except for the Berns Trail as previously discussed in this draft EIS; no federal lands occur on the Henderson, Picnic Table, or South Lykken Trails.
- Generally, bicycles are prohibited on trails managed by the Agua Caliente Band of Cahuilla Indians, except for the Palm Canyon Trail south of its intersection with the Dry Wash Trail, and two trails on the offered Tribal lands (segments of the Dunn Road Trail and Wild Horse Trail). The BLM may prohibit bicycles on segments of the Fern Canyon, Vandeventer, and East Fork Loop Trails that connect with segments of them on Tribal lands for consistency with the Tribe’s prohibition.
- Bicycles are prohibited on the Pacific Crest National Scenic Trail, on state lands in the Mt. San Jacinto State Park and Wilderness, and on state lands in the Carrizo Canyon and Magnesia Spring Ecological Reserves (except certain trails within the latter reserve, i.e., Mirage (Bump and Grind), Mike Schuler, Herb Jeffries, Hopalong Cassidy, and Art Smith Trails).

Public access with dogs to the Santa Rosa and San Jacinto Mountains has also been substantially constrained over time. Prior to 1971 in the Palm Springs area, there were virtually no restrictions regarding the control of dogs. Subsequently, the City of Palm Springs enacted an ordinance changing this circumstance, eventually enacted as municipal code 10.28.010 which requires dogs to be restrained by a leash (Palm Springs on-line posting). On certain BLM lands, limitations became more restrictive in 2000 when access with dogs was temporarily prohibited pending completion of a comprehensive trails management plan (BLM: 65 FR 3473, January 21, 2000). This multi-jurisdictional trails management plan, an element of the CVMSHCP (approved in 2008), prohibits dogs on nonfederal and non-Tribal lands within essential habitat for Peninsular

³⁰ Wilderness designations in the 1960s would have had little to no effect on opportunities for mountain biking *at that time* as such designations predated the advent of mountain biking as a popular recreational activity. It is widely held that mountain biking had its origins in the mid-1970s (Brandt on-line posting; Library.thinkquest.org on-line posting), though others suggest that mountain biking did not begin as an isolated incident, rather as a continuous series of events perhaps going as far back as the 1890s (Mountain Bike Hall of Fame on-line posting). Nevertheless, there are no reports indicating when mountain biking began in the Santa Rosa and San Jacinto Mountains.

bighorn sheep, including lands under jurisdiction of the signatory cities, except in designated areas (CVAG 2007). The BLM, however, has yet to render its decision regarding applicability of the plan to public lands; hence, the BLM's temporary prohibition is still applicable.³¹ Dogs are also prohibited on Tribal lands, within state ecological reserves, and in the Mt. San Jacinto State Park and Wilderness.

Cross-country travel has additionally been constrained in recent years. While off-trail travel is prohibited on Tribal lands in the Santa Rosa and San Jacinto Mountains, only recently has such prohibition been expanded to other lands. In accordance with the approved CVMSHCP, cross-country travel within essential habitat for Peninsular bighorn sheep on lands under jurisdiction of its signatories is prohibited from January 1 through October 31, though such travel on bicycles is prohibited year-round (CVAG 2007).³² However, cross-country travel, regardless of the conveyance, is currently allowed on public lands in the Monument. As previously indicated, the BLM has not made a determination regarding applicability of the trails management plan element of the CVMSHCP to public lands.

How, then, would the proposed action and alternatives cumulatively affect opportunities for recreation in the project area (see *geographic scope of analysis* below)? As a consequence of the proposed land exchange or preferred alternative, would opportunities for hiking, mountain biking, or horseback riding on official trails be affected? No. As discussed in this draft EIS, management of trail-based recreation upon implementation of the land exchange would not result in changes to such opportunities. Any changes that may occur would largely be due to circumstances that have already been set in motion, such as implementation of the trails management plan element of the CVMSHCP. Similarly, opportunities for access with dogs would not be substantially affected by the proposed land exchange. On the other hand, opportunities for cross-country travel may be diminished on up to 4,329 acres under scenario three of the proposed action whereupon 5,799 acres of public land would be exchanged for 1,470 acres of Tribal land; approval of the other two scenarios of the proposed action or the preferred alternative would result in lesser effects. But such diminishment is wholly dependent on the BLM's future decision regarding the management of cross-country travel as previously described.

Overview of cumulative effects to recreation resources

Geographic scope of analysis: Non-motorized recreation (predominantly hiking, mountain biking, and horseback riding) in the Santa Rosa and San Jacinto Mountains centers around a system of connected trails traversing multiple jurisdictions. This connectivity of trails, as it relates to *official* trails directly affected by the proposed land exchange and alternatives (i.e., those located upon the selected public lands and offered Tribal lands), is constrained to the north by the

³¹ Although the CVMSHCP was approved in 2008 by its signatories, which includes cities along the urban interface with the Monument, only the City of Palm Desert to date has aligned its municipal codes with management prescriptions set forth in the trails management plan element of the CVMSHCP. Hence, in areas such as Palm Springs only the current municipal codes can be enforced, which allow leashed dogs to access nonfederal and non-Tribal lands.

³² Consistent with the prohibition of dogs in essential bighorn sheep habitat, only the City of Palm Desert (to date) has aligned its municipal codes with management prescriptions established in the CVMSHCP, including the seasonal prohibition of cross-country travel (Palm Desert municipal code 11.01.080(Y)). Therefore, the prohibition of cross-country travel in the project area is currently enforceable only on Tribal lands.

urban environment of the Coachella Valley (as generally delineated by the Monument boundary and Tramway Road), to the east and south by Highway 74, and to the west by the steep face of the San Jacinto Mountains (the upper edge of which is generally established by the Pacific Crest National Scenic Trail and a segment of the Monument's western boundary) and the eastern boundaries of the San Jacinto Wilderness and Mt. San Jacinto State Wilderness.³³ This geographic scope is also applicable with respect to opportunities for access with dogs and for cross-country travel.

Temporal scope of analysis: Trail use in the Santa Rosa and San Jacinto Mountains dates back to prehistoric times, though administratively-established constraints regarding the use of trails in these mountains is a more recent circumstance that began in 1964 with passage of the Wilderness Act upon which motorized and mechanized transport, including bicycles, were prohibited on federal lands in areas designated as wilderness.³⁴ Since then, additional restrictions on non-motorized recreation in these mountains have been proposed and/or implemented. While it is anticipated that opportunities for non-motorized recreation will not be substantially affected in the short-term upon implementation of the proposed action or preferred alternative, changes to such opportunities in the long-term are less clear.

Although the change in landownership would likely be in perpetuity, the time frame for this cumulative effects analysis must be conditioned by actions that are reasonably foreseeable; attempting to ascertain impacts to recreation resources in the distant future as a consequence of the proposed land exchange (such as changes in opportunities for non-motorized access to lands acquired by the BLM or the Tribe) is unreasonable and speculative. The only reasonably foreseeable action is construction of a trail connecting the Garstin and Thielman Trails, which would enhance opportunities for hiking, horseback riding, and access with leashed dogs; such construction may occur within the next five to ten years. Should delisting of Peninsular bighorn sheep as an endangered population occur, opportunities for non-motorized recreation in the Santa Rosa and San Jacinto Mountains could change, though the manner and extent of such changes cannot be predicted at this time. At a minimum, delisting would take at least 12 years once certain bighorn sheep population requirements for down-listing and delisting are met (see section 3.2.15.1 of this draft EIS); until then, no substantial changes in recreation opportunities are anticipated. Therefore, the temporal scope of analysis is from about 1964 to when Peninsular bighorn sheep may be delisted, which could occur no sooner than 2026.

Past, present, and reasonably foreseeable future actions: Past and present actions pertaining to the management of non-motorized recreation in the Santa Rosa and San Jacinto Mountains, which includes the area described as the *geographic scope of analysis*, are described above in this subsection of the draft EIS. As previously indicated, the only reasonably foreseeable action on the selected public lands and offered Tribal lands with respect to *development* is construction of a

³³ Two exceptions to these “constraints” that limit the geographic range of non-motorized trails for purposes of analysis are the Jo Pond and Skyline Trails which ascend the steep east-facing face of the San Jacinto Mountains and connect to the Pacific Crest Trail and high-elevation trails in the Mt. San Jacinto State Park and Wilderness, respectively.

³⁴ Whereas these administratively-established constraints began in 1964 with respect to the Santa Rosa and San Jacinto Mountains—specifically as relates to the designated San Jacinto Wilderness and Santa Rosa Wilderness—there are no designated wilderness areas within the geographic scope of this cumulative effects analysis.

trail connecting the Garstin and Thielman Trails.³⁵ Reasonably foreseeable changes to *management* of non-motorized recreation include: (a) diminished opportunities for cross-country travel and access with dogs on nonpublic and non-Tribal lands upon alignment of local municipal codes with the trails management plan element of the CVMSHCP³⁶; (b) possible diminishment of cross-country travel opportunities on public lands, depending on whether and to what extent the BLM allows or restricts such travel through a separate decision-making process as relates to the trails management plan element of the CVMSHCP; and (c) an expanded prohibition of access with dogs to include public lands west of Palm Canyon, to the extent the BLM retains such public lands consequent to the proposed land exchange.

Analysis of cumulative effects: Implementation of the proposed land exchange or preferred alternative would result in an administrative change of land ownership only; no development actions or managerial changes are proposed in conjunction with the exchange (though where cross-country travel and access with dogs are currently allowed on the selected public lands, these activities would be prohibited upon acquisition of those public lands by the Tribe consistent with current management of Tribal lands). Opportunities for trail-based non-motorized recreation on the exchange lands are not anticipated to change for reasons previously described, principally due to the Tribe's commitment to manage access to trails in the same manner as the BLM (ACBCI 2012).

Within the geographic scope identified for analysis purposes there are 49 official trails totaling about 142 miles in length (BLM et al. n.d. and CVAG 2014).³⁷ The total combined mileage of official trails on the selected public and offered Tribal lands—12.1 miles—represents about 8.5 percent of trail mileage within the identified geographic scope of analysis. Because opportunities for hiking, mountain biking, and horseback riding on official trails are not anticipated to change as a consequence of the proposed land exchange and alternatives, opportunities for such recreation would not cumulatively be affected by the action.

³⁵ As previously indicated, reasonably foreseeable future actions are those for which there are existing decisions, funding, formal proposals, or which are highly probable, based on known opportunities or trends. Speculation about future actions is not required. (BLM 2008a)

³⁶ Where the CVMSHCP applies to nonpublic and non-Tribal lands, it is reasonable to expect that signatories to the plan, including local jurisdictions such as the City of Palm Springs, will align their respective municipal codes with prescriptions set forth in the trails management plan element; such prescriptions include a broadly applied prohibition of dogs and a seasonal prohibition of cross-country travel from January 1 through September 30 in the Santa Rosa and San Jacinto Mountains.

³⁷ Certain trails within the geographic scope of analysis are not included in the cited number and mileage of trails because they are *indirectly* connected to the system of trails related to the selected public lands and offered Tribal lands. For example, the Gabby Hayes, Herb Jeffries, Homestead, Hopalong Cassidy, Mike Schuler, and Mirage (Bump and Grind) Trails in the Homme-Adams Park / Cahuilla Hills Park area of Palm Desert are not included because their connectivity with other trails in the system is only via the Hopalong Cassidy Trail from where it intersects the Art Smith Trail; this intersection is almost seven miles distant from Dunn Road, the next closest “system” trail (other than the Art Smith Trail itself). Such indirectly-connected trails total 31 miles in length (12 trails). As previously described, “official” trails are those identified by the BLM and the Tribe where some type of use is appropriate and allowed either seasonally or year-round, and which have been inventoried and depicted on maps that are created or sponsored by the BLM or the Tribe. “Social” trails are not included in the cited number and mileage of trails.

Since access with dogs to the selected public lands and offered Tribal lands is already prohibited, the proposed action and alternatives would not cumulatively affect the public's opportunity to bring leashed dogs onto nonpublic and non-Tribal lands.³⁸ The proposed action and alternatives, on the other hand, may contribute to diminishing opportunities for cross-country travel on as much as 4,329 acres,³⁹ or about nine percent of lands within the geographic scope of analysis that are currently available for cross-country travel,⁴⁰ though such impact is dependent on the extent of public lands to be acquired by the Tribe, whether and to what extent the BLM imposes a cross-country prohibition on the lands it retains and/or acquires, and alignment of all local jurisdiction municipal codes with the trails management plan element of the CVMSHCP which broadly prohibits cross-country travel on a seasonal basis. Empirical data regarding occurrences of cross-country travel on the selected public lands and other properties in the project area, however, are not available; cumulative effects of the proposed action and alternatives on the frequency of occurrences, therefore, cannot be quantified.

4.2.1.8 Conclusion regarding effects to recreation resources

For reasons described above, implementation of the proposed action, preferred alternative, or no action alternative would not substantially affect opportunities for non-motorized recreation in the project area.

³⁸ As construction of a trail connecting the Garstin and Thielman Trails is a reasonably foreseeable future action and it is anticipated that leashed dogs would be allowed on the connector trail (as well as segments of the two trails to which it connects), opportunities for access with dogs may be enhanced. However, the proposed action and alternatives, as previously discussed, would not likely affect the proposal to construct this new trail; hence, they do not cumulatively affect opportunities to access the project area with dogs. It is also important to acknowledge that while construction of this trail is reasonably foreseeable, it is not a certainty. If constructed entirely on public lands, which could only occur under scenarios one and two of the proposed action, the preferred alternative, and the no action alternative, a separate decision-making process is required, the outcome of which cannot be predetermined.

³⁹ Under the no action alternative and the current situation whereby the BLM allows cross-country travel to occur year-round on the selected public lands, opportunities for such travel are available on 5,799 acres. Under scenario three of the proposed action, opportunities for such travel on lands acquired from the Tribe would be available on 1,470 acres; cross-country travel opportunities, therefore, would be diminished on 4,329 acres under this alternative. Under scenarios one and two of the proposed action and the preferred alternative, cross-country travel opportunities would be diminished on 2,545 acres, 3,186 acres, and 3,821 acres, respectively (see Table 4.2.1.7).

⁴⁰ Approximately 95,642 acres are contained within the geographic scope of analysis as herein described (including 1,791 acres in sections 33 and 35, T.6S. R.5E., and section 3, T.7S. R.5E., in the Pinyon Flat area, which are excluded from the Monument). However, opportunities for non-motorized cross-country travel are not currently available throughout this area: such travel is prohibited on 18,119 acres of Tribal lands (travel allowed on trails only, ACBCI 2010); 2,571 acres of state lands in the Magnesia Spring and Carrizo Canyon Ecological Reserves (California Code of Regulations, Title 14, Chapter 11 § 630(a)(7)); 480 acres on City of Palm Desert lands (municipal code 11.01.080(Y), seasonal prohibition); 611 acres in the University of California Deep Canyon Desert Research Center (closed to public entry in its entirety); and 27,133 acres of private land—for purposes of this analysis, it is presumed that off-trail travel on private lands is not allowed absent landowner permission. Therefore, opportunities for cross-country/off-trail travel are currently limited to 46,728 acres within the geographic scope of analysis: 22,980 acres of BLM lands, including the public lands selected for the proposed land exchange; 21,888 acres of U.S. Forest Service lands; and 1,860 of local jurisdiction lands, excluding Palm Desert.

4.2.2 Impacts to Special Status Species

4.2.2.1 *Threatened and Endangered Animal Species*

Each federal agency shall determine whether its actions may affect listed species or designated critical habitat, and if such a “may affect” determination is made, enter into formal consultation with the U.S. Fish and Wildlife Service (50 CFR § 402.14).⁴¹ The proposed land exchange between the BLM and the Tribe constitutes an agency action subject to this regulatory requirement. This section of the draft EIS, therefore, assesses the environmental impacts of the proposed action and alternatives to Peninsular bighorn sheep, least Bell’s vireo, southwestern willow flycatcher, and desert tortoise, the four listed species that occur or may occur within the project area, or to designated critical habitat for these species. Species accounts are provided in section 3.2.15 of this draft EIS, including species overviews and discussions about the federal listing, modeled habitat, designated critical habitat, threats, population trend, and recovery for each of the four listed species.

As suggested above, there are two fundamental questions to be answered in this section of the draft EIS: (1) what are the anticipated direct, indirect, and cumulative effects on the listed species, and the significance of these effects, that would result from implementing the proposed action or an alternative action, and (2) what are the anticipated direct, indirect, and cumulative effects on designated critical habitat, and the significance of these effects, from implementing the same? These questions are addressed in the subsections below for each of the listed species.

4.2.2.1.1 Peninsular bighorn sheep (*Ovis canadensis nelsoni*): federally listed as endangered; listed by the State of California as threatened.

Impacts to bighorn sheep:

As previously described, implementation of either the proposed action or preferred alternative would, in essence, be an administrative undertaking whereby ownership of the selected public lands and offered Tribal lands changes in whole or in part; no other undertakings, such as facility development, are proposed on these lands in conjunction with the proposed land exchange. The only reasonably foreseeable future action would be construction of a trail connecting the Garstin and Thielman Trails in section 36, T.4S. R.4E., and section 1, T.5S. R.4E., which under scenarios one and two of the proposed action, as well as the preferred and no action alternatives, would occur entirely on public lands.⁴² Only under scenario three of the proposed action, whereby section 36 may be transferred to the Tribe, would construction of this trail be addressed by both the BLM and the Tribe. Should a proposal to construct the trail be forthcoming, it would be subject to a separate decision-making process, including a specific analysis of its effects on Peninsular bighorn sheep.

⁴¹ Formal consultation is not required if, as the result of the preparation of a biological assessment under 50 CFR § 402.12 or as a result of informal consultation with the USFWS under 50 CFR § 402.13, the federal agency determines, with the written concurrence of the USFWS, that the proposed action is not likely to adversely affect any listed species or critical habitat (50 CFR § 402.14).

⁴² Whereas facility development other than potential construction of a trail connecting the Garstin and Thielman Trails is not reasonably foreseeable, habitat improvement projects, such as the removal of tamarisk, and trail maintenance activities would likely continue where appropriate on the selected public lands and offered Tribal lands. These actions, however, are addressed through separate decision-making processes.

Therefore, direct, indirect, and cumulative effects of the proposed land exchange on Peninsular bighorn sheep (versus effects to their habitat; see discussion below) are unlikely. It is not anticipated that bighorn sheep behaviors (e.g., foraging, breeding, rearing, rutting, resting, and movement through the landscape) would change simply because ownership of the selected public lands and offered Tribal lands changes.

Similarly, non-motorized recreational activities on the public and Tribal lands identified for the land exchange—predominantly hiking, mountain biking, and horseback riding—are anticipated to generally occur to the same extent and at the same levels whether the proposed action, preferred alternative, or no action alternative is approved (see section 4.2.1). While decisions regarding the management of these non-motorized recreational activities would occur separate from implementation of the proposed land exchange, preferred alternative, or no action alternative, an analysis of impacts to Peninsular bighorn sheep resulting from the continuation of hiking, mountain biking, and horseback riding on the selected public lands and offered Tribal lands is relevant and therefore presented below.

Recovery Plan (USFWS 2000)

The U.S. Fish and Wildlife Service has been delegated the responsibility of administering the Endangered Species Act of 1973, and is directed to develop and implement recovery plans for species of animals and plants listed as endangered and threatened. Recovery is the process by which the decline of endangered or threatened species is arrested or reversed, and threats to survival are neutralized, ensuring long-term survival in nature. A recovery plan, therefore, delineates, justifies, and schedules the management and research actions necessary to support the recovery of listed species.

In its recovery plan for Peninsular bighorn sheep, the USFWS asserts that an important consideration in the conservation of Peninsular bighorn sheep, in part, is their behavioral response to humans and human activity. Bighorn sheep responses to human activity are highly variable and depend on many factors, including the type of activity, an animal's previous experience with humans, size or composition of the bighorn sheep group, distance to escape terrain, and distance to the activity. Responses can range from cautious curiosity to immediate flight or abandonment of habitat, as well as disruption of normal social patterns and resource use. Although the effect of human activity in bighorn sheep habitat is not always obvious, human presence or activity in many cases has been found to detrimentally alter normal behavior and habitat use patterns. Hence, one of the goals identified in the recovery plan to address threats to Peninsular bighorn sheep is the reduction or elimination of detrimental human activities within bighorn sheep habitat. (USFWS 2000) The pertinent question, therefore, is whether non-motorized recreational activities in the project area are detrimental to the recovery of these bighorn sheep. The remaining discussion in this subsection will focus on this determination.

Recreation activities are part of a cumulative set of factors affecting bighorn sheep in the Peninsular Ranges,⁴³ some of which (e.g., development-related pressures) are more intense in the

⁴³ A variety of human activities such as hiking, mountain biking, horseback riding, hang gliding, camping, hunting, livestock grazing, dog walking, and use of aircraft and off-road vehicles have the potential to disrupt normal bighorn sheep behaviors and use of essential resources, or cause bighorn sheep to abandon traditional habitat. However, attempts to ascribe relative importance, distinguish among, or generalize the effects of different human activities on sheep behavior are not supportable given the range of

Coachella Valley than elsewhere in sheep habitat, such as in the Anza-Borrego region to the south. The proportionally larger population declines of bighorn sheep in the northern Santa Rosa and San Jacinto Mountains may be related in part to the relatively higher levels of human disturbance associated with the larger metropolitan area.⁴⁴ Contributing factors may include the extensive and interconnected trail system: most of the trails in these mountains head upslope and intersect other trails at higher elevations, forming an extensive trail network throughout ewe group home ranges, including lambing, rearing, and watering habitat. (USFWS 2000)

As one of the tasks aimed at reducing or eliminating detrimental human activities within bighorn sheep habitat, the USFWS prescribed the development and implementation of a trails management program with affected land management agencies, scientific organizations, and user groups. Elements of the program would include public education, prohibition of dogs in bighorn sheep habitat, seasonal restrictions on trails that bisect lambing and rearing habitat, seasonal restrictions or trail relocations for trails that lead to water sources, and monitoring, enforcement, and research. The USFWS identified specific trails and areas that potentially conflict with lambing from January 1 through June 30 and bighorn sheep access to water from June 1 through September 30, indicating these conflicts should be addressed in an interagency trails plan. These trails include several that would be directly affected by the proposed land exchange: North Lykken Trail, Skyline Trail, and the “Murray Hill trail complex,” which is considered to include the Araby, Berns, Dunn Road (Trail), East Fork Loop, Garstin, Shannon, Thielman, and Wild Horse Trails. (USFWS 2000)

Coachella Valley Multiple Species Habitat Conservation Plan (2007)

The CVMSHCP planning effort began in 1994 when a scoping study prepared for the Coachella Valley Association of Governments by the Coachella Valley Mountains Conservancy was publicly considered. Subsequently, a Memorandum of Understanding was executed in 1996 to initiate preparation of the CVMSHCP; the BLM signed this MOU along with nine Coachella Valley cities, the County of Riverside, and state and other federal agencies. While not a signatory to the plan itself, the BLM determined how best to support the CVMSHCP through its California Desert Conservation Area Plan Amendment for the Coachella Valley (BLM 2002a).

An element of the CVMSHCP is the interagency trails management program referenced in the USFWS recovery plan for Peninsular bighorn sheep. Consistent with recommendations contained in the recovery plan, the preferred alternative described in the public review draft of the CVMSHCP, released in 2004, would establish substantial restrictions on access to certain trails.

potential reactions reported in the scientific literature and the different variables impinging on given situations. (USFWS 2000)

⁴⁴ Peninsular bighorn sheep in the United States declined from an estimated 1,171 individuals in 1971 to about 450-600 individuals in 1991. Population estimates at the time of listing in 1998 indicated a continued decline to about 280 individuals, divided amongst approximately eight ewe groups. (USFWS: 63 FR 13134, March 18, 1998). In the northern Santa Rosa Mountains (west of Highway 74), ewe abundance estimates were 15.9, 14.0, and 11.6 for 1994, 1996, and 1998, respectively; in the San Jacinto Mountains during this same period, estimates were 7, 7, and 8, respectively. These ewe abundance estimates were the lowest for any of the eight ewe groups. By comparison, ewe group abundance estimates for the Santa Rosa Mountains east of Highway 74 were 66.2, 83.0, and 48.3 for 1994, 1996, and 1998, respectively. (USFWS 2000) Subsequently, the ewe group occupying the Santa Rosa Mountains east of Highway 74 was recognized as two separate ewe groups: central Santa Rosa Mountains and southern Santa Rosa Mountains, thereby yielding a total of nine ewe groups for the U.S. population of Peninsular bighorn sheep.

While 31 trails would be open year-round, nine trails would be subject to a permit program whereupon 2,300 individuals and 50 groups only would be allowed to use these trails from January 15 through June 30; four trails would be closed from July 1 through September 30; six trails would be subject to a voluntary trail avoidance program from January 15 through June 30; and cross-country travel would be prohibited from January 15 through September 30 (CVAG 2004).⁴⁵ Relative to trails directly affected by the proposed land exchange, the North Lykken and Skyline Trails would be subject to the seasonal permit program; the remaining trails on the exchange lands would be open year-round.

In response to public comments and as a result of further consideration regarding conditions of local bighorn sheep and their habitat, the precautionary approach that guided development of the trails management plan element of the draft CVMSHCP was revised in favor of an adaptive management approach emphasizing research on the effects of recreational trail use on Peninsular bighorn sheep, and monitoring such trail use and bighorn sheep populations. The revised trails plan, which eliminated provisions establishing the restrictive permit and voluntary trail avoidance programs, was presented in the subsequent final CVMSHCP released in 2006, and carried forward into the final recirculated plan (September 2007), which was approved in October 2008 upon the issuance of permits by the U.S. Fish and Wildlife Service and the California Department of Fish and Game (now California Department of Fish and Wildlife).

The revised trails plan described in the 2007 final recirculated CVMSHCP, however, would appear to be in contradiction to the recovery plan which cites studies showing that expansive urban development in and around bighorn sheep habitat in three metropolitan areas—Albuquerque, Tucson, and the Coachella Valley—led to habitat abandonment and population declines. Although cases have been cited in which bighorn sheep populations did not appear to be affected by human activity, numerous researchers have documented altered bighorn sheep behavior in response to anthropogenic disturbance. Even when bighorn sheep appear to be tolerant of a particular activity, continued and frequent use can cause them to avoid an area, eventually interfering with use of resources, such as water, mineral licks, lambing or feeding areas, or use of traditional movement routes. It was repeatedly cautioned that human disturbance threatened the viability of a bighorn sheep population in the Santa Catalina Mountains outside of Tucson; it was found that habitat abandoned by bighorn sheep had greater human disturbance than occupied habitat. Today, this population is extinct, or nearly so, and human activities apparently contributed to its demise. (USFWS 2000)

Given the potential behavioral vulnerabilities of bighorn sheep to human disturbance and associated risks to the persistence of depressed populations in the Coachella Valley, a biologically conservative management approach was deemed appropriate by the USFWS. Why, then, was the precautionary approach to the trails management program as expressed in the 2004 draft CVMSHCP changed to one favoring adaptive management whereupon few restrictions on the use of trails were prescribed? The reasons were best articulated in the 2007 final recirculated CVMSHCP:

⁴⁵ Whereas the recovery plan for Peninsular bighorn sheep identifies the lambing season as January 1 through June 30, and the water stress period as June 1 through September 30, the draft CVMSHCP identified lambing season restrictions as applicable from January 15 through June 30, and water stress season restrictions as applicable from July 1 through September 30. Rationale for these differences is not offered in the 2004 draft CVMSHCP.

A clear cause-and-effect link between trail use and reduced bighorn sheep fitness (defined as survival and reproduction) and population levels has not been established by the current body of research and analysis. Studies of appropriate duration and design have not been attempted such that they could conclusively establish this link. Nonetheless, the scientific literature does provide some support for the premise that recreational use of sensitive bighorn sheep habitat (particularly during lambing and hot seasons) may negatively affect bighorn sheep (Horejsi 1976; Graham 1980; Stemp 1983; Miller and Smith 1985; Etchberger et al. 1989; Krausman et al. 2001; Papouchis et al. 2001). Researchers have determined that, under certain circumstances, human recreation may temporarily displace bighorn sheep, disrupt foraging which may reduce nutrient acquisition, and cause uncertain levels of stress. However, uncertainty remains where the long-term effects on bighorn sheep populations are concerned. (CVAG 2007)

A more recent study examining the effects of recreation on desert bighorn sheep in the local region supports this conclusion with respect to the uncertainty of long-term effects. Longshore et al. (2013) studied responses of desert bighorn sheep (*Ovis canadensis nelsoni*) to weekend recreation activity in the Wonderland of Rocks/Queen Mountain region of Joshua Tree National Park, located approximately 35 miles northeast of the land exchange project area. The study area is inhabited by a small population of bighorn sheep—54 adults in 2003; 59 adults in 2004—one of an estimated five populations within the national park. Total daily accumulated trail counter data pooled for three sites in the study area locale were 1,014, 760, 868, 1,375, and 1,292 hiker detections for Monday through Friday, respectively, and 2,520 and 2,064 detections on Saturday and Sunday, respectively; trail counter data were collected from February through March in 2003 and 2004.

The primary goal of the research was to determine whether daily recreation activity caused bighorn sheep to move away from trails or to change location with respect to water or escape terrain. Results indicated that within the study area, moderate to high levels of recreation activity may temporarily exclude bighorn females from their preferred habitat. However, the relative proximity of females to recreation trails during the weekdays before and after such habitat shifts indicates these anthropogenic impacts are short-lived.

Cross-country travel. With respect to cross-country (off-trail) travel by hikers, mountain bikers, and horseback riders, would opportunities for such travel be affected by the proposed land exchange and alternatives, thereby differentially affecting Peninsular bighorn sheep depending on which alternative is selected? Under current management prescriptions for public and Tribal lands, opportunities for cross-country travel would be most constrained by scenario three of the proposed action, and least constrained by the no action alternative (see table 4.2.1.7 in section 4.2.1 of this draft EIS). Of the 7,269 acres of selected public lands and offered Tribal lands combined, about 20 percent would be available for cross-country travel under scenario three of the proposed action; 27 percent under the preferred alternative; 36 percent under scenario two of the proposed action; 45 percent under scenario one of the proposed action; and 80 percent under the no action alternative—all opportunities for cross-country travel would occur on BLM lands only.

To reiterate from section 4.2.1, no empirical data are available regarding occurrences of cross-country travel in the project area to suggest whether changes in land ownership, thereby changing opportunities for such travel as they currently exist, would affect actual use. While opportunities

would be diminished upon implementation of the proposed action or preferred alternative, the potential effects on bighorn sheep are limited if few people actually engage in such activity. Nevertheless, it is appropriate to discuss the potential effects of cross-country travel on bighorn sheep in order to compare and contrast alternatives in this regard.

Current scientific literature strongly suggests that cross-country travel by hikers, particularly during lambing season, may result in adverse impacts to bighorn sheep. The EIR/EIS prepared for the CVMSHCP (CVAG 2007) indicates that cross-country travel may have a greater effect on bighorn sheep than trail use, citing Papouchis et al. (2001). Papouchis found that hikers cause the greatest disturbance to bighorn sheep when in unpredictable locations (i.e., off trails and in variable locations), consistent with other research findings, such as described by MacArthur et al. (1979). Further, increased sensitivity to hikers in high-use areas was suggested by a greater responsiveness by males in autumn during the rut and greater distances fled by females in spring during the lambing season. The increased expenditure of energy resulting from disturbances could force females and lambs into habitat with less escape cover, making lambs more vulnerable to predation. Excessive disturbances of males during rut could disrupt their opportunity to find mates. The authors recommended that hikers be confined to maintained trails where their movement would be more predictable to bighorn sheep.

While it may appear that the potential for adverse impacts to Peninsular bighorn sheep resulting from cross-country travel significantly varies by alternative—opportunities for such travel ranges from 20 to 80 percent of the total acreage where it might occur—it cannot be reasonably concluded that population-level effects of cross-country travel would substantially differ when comparing one alternative to another. As previously indicated, there are no empirical data regarding extent or levels of cross-country travel in essential bighorn sheep habitat overall, or in the project area in particular. In addition, opportunities for such activity are substantially constrained by topography on the east flank of the San Jacinto Mountains where the majority of the selected public lands occur; opportunities for cross-country travel are greatest on the remaining selected public lands, though a substantial portion of these are not proposed for exchange under the preferred alternative. Finally (as also previously indicated), there is uncertainty with respect to the long-term effects of recreational activities, including cross-country travel, on bighorn sheep fitness and population levels. The population of bighorn sheep has increased in the northern and central Santa Rosa Mountains recovery regions and has remained stable in the San Jacinto Mountains (at increased numbers relative to the time of listing in 1998) despite a continuation of largely-unregulated non-motorized recreational activity on BLM-managed lands in these areas (except for a prohibition of dogs) and an increase of human population in the Coachella Valley. It is important to acknowledge that cross-country travel and access with dogs are prohibited on Tribal lands in the project area; whether or to what extent such prohibitions were factors supporting an increase in the local bighorn sheep population are undetermined.

Access with dogs. Allowing dogs within essential bighorn sheep habitat would result in serious disturbance to bighorn sheep because they see dogs as predators, thereby potentially displacing bighorn sheep, disrupting foraging (which may reduce nutrient acquisition), and causing uncertain levels of stress (CVAG 2007). Under current management (no action alternative), dogs are prohibited year-round on the selected public lands east of Palm Canyon (including section 36, T.5S. R.4E., which includes the “bottom” of the canyon) and all the offered Tribal lands; leashed dogs are currently allowed on the selected public lands west of Palm Canyon.⁴⁶ Assuming that

⁴⁶ The prohibition of dogs on public lands is described in a notice published by the BLM in the

access with dogs generally occurs on official trails for the safety of both trail user and dog (versus cross-country or on social trails), opportunities for such access would be greatest under scenarios one and two of the proposed action and the no action alternative—in which 1.9 miles or about 16 percent of trails on the selected public and offered Tribal lands would be available for hiking with dogs—and least under scenario 3 of the proposed action and the preferred alternative in which no trails would be available for this activity. Concomitantly, potential adverse effects to Peninsular bighorn sheep from hiking with dogs would be greatest and least under these same alternatives, respectively.

Tribal Habitat Conservation Plan (ACBCI 2010)

As indicated in section 1.4d(i) of this draft EIS, trails under the management of the Tribe will be kept open and managed under provisions of the Tribe's trails management plan, the Indian Canyons Master Plan, the cooperative agreement with the BLM, and the Tribal Habitat Conservation Plan. Further, the Tribe has committed to managing trails on the lands it acquires from the BLM in the same manner as the BLM (ACBCI 2012). Therefore, trail-based recreation would likely occur to the same extent and at the same levels whether the proposed action, preferred alternative, or no action alternative is approved (see section 4.2.1). As a result, it is not anticipated that bighorn sheep behaviors would change simply because ownership of the selected public lands and offered Tribal lands changes, consistent with the analysis provided above.

Summary

Changing ownership of the selected public lands and offered Tribal lands in and of itself would have little to no direct, indirect, or cumulative effect on Peninsular bighorn sheep. Since actions other than changing ownership of certain parcels of land in the Palm Canyon area are not proposed or reasonably foreseen as a consequence of the land exchange, the primary concern therefore relates to impacts to bighorn sheep resulting from activities that would continue on these public and Tribal lands. Principal among these activities is non-motorized, trail-based recreation. Hence:

- Would the proposed land exchange or alternatives *directly* affect the extent and levels of recreational trail use—i.e., cause a change in recreational trail use that occurs immediately upon execution of the action and in the same place—thereby concomitantly changing the behaviors and habitat use patterns of Peninsular bighorn sheep? Not likely.
- Would the proposed land exchange or alternatives *indirectly* affect the extent and levels of recreational trail use—i.e., cause a change in recreational trail use that is later in time or farther removed in distance, but is still reasonably foreseeable—

Federal Register on January 21, 2000 (65 FR 3473). This prohibition remains in effect pending completion of a comprehensive trails management plan which addresses all aspects of trail and trailhead use in the Santa Rosa Mountains National Scenic Area (absorbed by what is now the Santa Rosa and San Jacinto Mountains National Monument). The referenced plan is the multijurisdictional trails management plan element of the CVMSHCP; the BLM has yet to issue a decision regarding the federal land component of the trails plan. It is anticipated, however, that consistent with management prescriptions established in the CVMSHCP, approved in October 2008, the BLM will expand the prohibition of dogs to include public lands west of Palm Canyon should any such lands be retained by the BLM upon conclusion of the proposed land exchange.

thereby concomitantly changing the behaviors and habitat use patterns of Peninsular bighorn sheep? Not likely.

- Would the proposed land exchange or alternatives *cumulatively* affect the extent and levels of recreational trail use—i.e., add to other past, present, and reasonably foreseeable future actions—thereby concomitantly changing the behaviors and habitat use patterns of Peninsular bighorn sheep? Not likely.

Although opportunities for non-trail-based recreational activities (cross-country travel) and access with dogs would vary by alternative as described above, realization of these opportunities would be limited regardless of the alternative selected; impacts to Peninsular bighorn sheep resulting from these activities, therefore, would vary little by alternative. Since the extent and levels of recreational trail use would not likely change in response to implementation of the proposed land exchange, preferred alternative, or no action alternative, and the long-term, population-level effects of these activities on bighorn sheep are uncertain, it can be reasonably concluded that Peninsular bighorn sheep in the project area are not likely to be adversely affected by any of these alternatives.

Impacts to habitat:

As previously indicated, the regulations at 50 CFR Part 402—Interagency Cooperation, Endangered Species Act of 1973, as Amended—require federal agencies to determine whether any action may affect listed species or critical habitat (50 CFR § 402.14(a)). Effects of the proposed action and alternatives on Peninsular bighorn sheep are described above. The following analysis addresses impacts to bighorn sheep habitat, whether designated as critical or identified as modeled or essential (see section 3.2.15.1 of this draft EIS for a discussion of critical, modeled, and essential habitats).

At its extreme, habitat loss is a leading cause of current species extinctions and endangerment worldwide, and represents a particularly serious threat to Peninsular bighorn sheep because they live in a narrow band of lower elevation habitat that represents some of the most desirable real estate in the California desert. At least 18,500 acres of suitable habitat has been lost to urbanization and agriculture within the range of three ewe groups that occur along the urban interface between Palm Springs and La Quinta. Encroaching urban development and anthropogenic disturbances have the dual effect of restricting animals to a smaller area and severing connections between ewe groups. Fragmentation poses a particularly severe threat to species with a metapopulation structure, such as Peninsular bighorn sheep, because overall survival depends on interaction among subpopulations.⁴⁷ (USFWS 2010a) Consequently, the BLM and the Tribe, through implementation of their respective land use plans, strive to conserve the various habitat types under their jurisdiction in the Santa Rosa and San Jacinto Mountains, including habitat types that support bighorn sheep, in order to maintain or restore ecological integrity to the maximum extent practicable.

⁴⁷ A metapopulation consists of a group of spatially separated populations of the same species that interact at some level. With respect to Peninsular bighorn sheep, the movement of rams and occasional ewes between ewe groups maintains genetic diversity and augments populations of individual ewe groups. Increased fragmentation increases the risk of ewe group extinction.

Defining conservation

As a first step in analyzing effects of the proposed land exchange and alternatives on the conservation of bighorn sheep habitat in the project area, as well as habitat for other wildlife species, it is important to define “conservation” and establish context with respect to conservation commitments made by the BLM and the Tribe. What is meant by “conservation” or “conserved lands”? One dictionary defines conservation as the official care, protection, or management of natural resources (Simon and Schuster 1988). More specifically, the BLM considers the “act of conserving” to be the use of all methods and procedures which are necessary to bring any endangered or threatened species to the point at which the measures provided pursuant to the Endangered Species Act are no longer necessary (BLM 2002a and 2008c). “Conservation” as applied to BLM sensitive species means the use of programs, plans, and management practices to reduce or eliminate threats affecting the status of the species, or improve the condition of the species’ habitat on BLM-administered lands (BLM 2008c). The Tribe defines “conservation measures” as actions and methods used to protect Covered Species—including preservation and management of habitat—and considers “conservation agreements” to be for the purpose of establishing areas that are to remain in a naturally occurring state in order to protect and conserve Covered Species (ACBCI 2010).^{48 1}

BLM and Tribal conservation commitments

The California Desert Conservation Area Plan Amendment for the Coachella Valley (BLM 2002a) is the land use plan that governs management of the public lands selected for the land exchange. Goals of the plan amendment include ensuring a balance of multiple use and sustainable public land uses with progress towards attaining healthy, properly functioning ecosystems, and working in collaboration with the Tribe (among others) to conserve the values of, and manage land uses in, the Santa Rosa and San Jacinto Mountains National Monument. The plan amendment was developed in partnership with local jurisdictions of the Coachella Valley, special interest groups, and state and federal agencies in support of an agreement signed in 1991 committing members of the California Biodiversity Council (which includes the BLM) to cooperate, communicate, and foster regional efforts to promote biodiversity conservation, as well as in support of a memorandum of understanding signed in 1996 to prepare the Coachella Valley Multiple Species Habitat Conservation Plan.

A key component of the BLM’s plan amendment is an element establishing habitat conservation objectives based on the habitat needs for sensitive plant and animal species which occupy eight specific vegetation community types. Habitat conservation objectives include the conservation of at least 99 percent of existing sand dunes and sand fields, desert scrub communities, chaparral communities, desert alkali scrub communities, marsh communities, dry wash woodland and mesquite communities, native riparian communities, and woodland and forest communities. Future activities are required to conform to the habitat conservation objectives established for a particular community type within conservation areas, which include the Monument. Activities which cannot meet these objectives, either through avoidance or mitigation measures, would be disallowed.

On November 2, 2010, the Agua Caliente Band of Cahuilla Indians approved its Tribal Habitat Conservation Plan to provide the means for protecting and contributing to the conservation of

⁴⁸ “Covered Species” are those wildlife and plant species and subspecies protected through implementation of management prescriptions contained in the THCP.

wildlife species federally listed as threatened or endangered, and species deemed by the Tribe and U.S. Fish and Wildlife Service to be sensitive and potentially listed in the future. The plan provides mechanisms to permit and guide development, serves as an adaptive management tool for updating and/or revising baseline biological resource information and management conservation goals and priorities, and complements other existing and planned conservation efforts in the region.

A key component of the THCP is the creation of a Habitat Preserve which, should the plan area become developed to the full extent allowed by the plan, will include all lands dedicated for conservation in perpetuity as a result of mitigation measures implemented by the THCP and all lands acquired by the Tribe from funds generated through a fee applied to activities covered by the THCP. In such event, the Habitat Preserve would include an estimated 18,870 acres comprising approximately one half of the entire Agua Caliente Indian Reservation. It would consist of 16,367 acres of upland habitat in the THCP's Mountains and Canyons Conservation Area, 1,048 acres of riparian habitat, and up to 1,455 acres of valley floor species habitat on and off the Reservation in the THCP's Valley Floor Planning Area. (ACBCI 2010)

As suggested above, the THCP divides the Reservation into two distinct areas: the Mountains and Canyons Conservation Area (MCCA) and the Valley Floor Planning Area (VFPA). The MCCA includes all portions of the Santa Rosa and San Jacinto Mountains within the Reservation, generally above the 800-foot elevation contour. The VFPA consists of the balance of the Reservation, generally including the areas lying below 800 feet and on the floor of the Coachella Valley. In the Mountains and Canyons Conservation Area (see Figure 4), the goal is to conserve 85 percent of the land, or 5.67 acres for every one acre of development, thereby allowing development to occur on 15 percent of the MCCA, though no net loss of riparian areas and palm groves would be allowed. In addition, the THCP avoids impacts to Peninsular bighorn sheep lambing and use areas, with 100 percent conservation of identified lambing areas, maintains a bighorn sheep movement corridor between the San Jacinto Mountains and Northern Santa Rosa Mountains, and establishes a 1/4-mile buffer around water sources. If the entire MCCA should maximize development potential to the extent allowed by the THCP and therefore contribute as much to the Habitat Preserve as possible, the Habitat Preserve in the MCCA will include up to approximately 17,403 acres of Tribal lands. (ACBCI 2010)

Habitat conservation and the proposed land exchange

Both the selected public lands and offered Tribal lands for the proposed land exchange occur within the Mountains and Canyons Conservation Area. Lands acquired by the BLM from the Tribe through the proposed land exchange would be managed in accordance with the CDCA Plan, as amended. Lands acquired by the Tribe from the BLM would be managed in accordance with the Indian Canyons Master Plan, the Tribal Habitat Conservation Plan, and other applicable plans and ordinances. However, the acquired public lands would not be subject to the 15 percent development limit established for the Mountains and Canyons Conservation Area; rather, development would be limited to about 3.8 percent of the acquired lands, thereby establishing a conservation commitment on 96.2 percent of these lands (ACBCI 2010).⁴⁹

⁴⁹ Public lands retained by the BLM and lands acquired from the Tribe would be subject to the CDCA Plan, as amended, including a commitment to conserve at least 99 percent of each habitat type within the Santa Rosa and San Jacinto Mountains National Monument. Lands acquired by the Tribe from the BLM, and other Tribal lands within the MCCA, would be subject to the THCP. As part of the MCCA, all 1,470 acres of the offered Tribal lands are currently designated for 85 percent conservation; hence, at

Whether the proposed land exchange or some derivation is approved, or an exchange of lands does not occur, overall conservation of BLM lands selected for the land exchange and Tribal lands within the Mountains and Canyons Conservation Area (including both offered lands for the exchange and the remaining lands within the Conservation Area) combined would be about the same, i.e., approximately 88 percent. The tables below summarize the extent of habitat conservation that would occur under these various alternatives. Table 4.2.2.1 describes extent of conservation and potential development of the selected public lands (totaling 5,799 acres), offered Tribal lands (totaling 1,470 acres), and remaining Tribal lands within the Mountains and Canyons Conservation Area (totaling 19,004 acres). Table 4.2.2.2 describes the extent of conservation and potential development of the selected public lands and offered Tribal lands only.

Analytical assumptions. For purposes of analysis, potential development of the selected public lands is presumed to be uniformly spread across the project area. However, with respect to implementation of the 99 percent conservation objective for various habitat types on public lands as provided by the CDCA Plan Amendment for the Coachella Valley (BLM 2002a), conservation on the selected public lands could theoretically range from substantially less than 99 percent to 100 percent. Why? The 99 percent conservation commitment is applicable to specific habitat types within the planning area identified for the plan amendment, which at the time contained about 1.2 million acres, of which approximately 330,000 acres were managed by the BLM. Desert scrub communities are the predominant habitat type on BLM lands within the Monument, including the project area, with chaparral and woodland/forest communities occurring at the higher elevations. If the one percent development potential for one of these habitat types was fully realized on public lands outside the project area, then conservation of the selected public lands would be 100 percent. The converse could also occur whereby the one percent development potential could be fully realized on the selected public lands. In reality, however, the latter scenario is not likely given that the selected public lands occur in habitat for Peninsular bighorn sheep, a circumstance that would probably constrain the extent to which the public lands could be developed.

Similarly, for purposes of analysis it is presumed that conserved and potentially developed lands are uniformly spread across the offered Tribal lands, but such would not likely be the case in reality. Within the Peninsular bighorn sheep “use area,” which generally extends from Chino Canyon to Andreas Canyon along the lower elevations of the San Jacinto Mountains, development rights would be transferred to land elsewhere in the THCP area or the land would be acquired for dedication to the Habitat Preserve, resulting in 100 percent conservation of this area. Additionally, a Peninsular bighorn sheep corridor study area has been identified across Palm Canyon, generally south of Andreas Canyon. Development within this corridor would be limited to five percent of the property; the remaining 95 percent would be required for conservation. (ACBCI 2010)

least 1,249 acres are in conservation status. The remaining 221 acres are subject to potential development. The Tribe has committed to limiting development potential on lands acquired from the BLM commensurate with this 221-acre limit, which results in a conservation level of about 96.2 percent on these lands should all 5,799 acres of public lands be acquired. Should fewer than 5,799 acres be acquired by the Tribe, the 96.2 percent conservation level would be applied to the acquired lands, i.e., the 221-acre development limit would be prorated.

Table 4.2.2.1: Conservation and potential development of selected public lands, offered Tribal lands, and other Tribal lands within the MCCA, in acres (26,273 acres total)

	Proposed Action <i>scenario 1</i>	Proposed Action <i>scenario 2</i>	Proposed Action <i>scenario 3</i>	Preferred Alternative	No Action Alternative
	BLM	BLM	BLM	BLM	BLM
public lands retained	1,784	1,143	0	508	5,799
acquired lands	1,470	1,470	1,470	1,470	0
<i>total</i>	3,254	2,613	1,470	1,978	5,799
x 0.99	3,221	2,587	1,455	1,958	5,741
x 0.01	33	26	15	20	58
	Tribe	Tribe	Tribe	Tribe	Tribe
Tribal lands subject to 85 percent conservation	19,004	19,004	19,004	19,004	20,474
x 0.85	16,153	16,153	16,153	16,153	17,403
x 0.15	2,851	2,851	2,851	2,851	3,071
acquired lands subject to 96.2 percent conservation	4,015	4,656	5,799	5,291	0
x 0.962	3,862	4,479	5,578	5,090	0
x 0.038	153	177	221	201	0
	Summary	Summary	Summary	Summary	Summary
total conservation in MCCA, public and Tribal lands	23,236 (88.44 %)	23,219 (88.38 %)	23,186 (88.25 %)	23,201 (88.31 %)	23,144 (88.09 %)
total potential development in MCCA, public and Tribal lands	3,037 (11.56 %)	3,054 (11.62 %)	3,087 (11.75 %)	3,072 (11.69 %)	3,129 (11.91 %)

Table 4.2.2.2 Conservation and potential development of selected public lands and offered Tribal lands only, in acres (7,269 acres total)

	Proposed Action <i>scenario 1</i>	Proposed Action <i>scenario 2</i>	Proposed Action <i>scenario 3</i>	Preferred Alternative	No Action Alternative
	BLM	BLM	BLM	BLM	BLM
public lands retained	1,784	1,143	0	508	5,799
acquired lands	1,470	1,470	1,470	1,470	0
<i>total</i>	3,254	2,613	1,470	1,978	5,799
x 0.99	3,221	2,587	1,455	1,958	5,741
x 0.01	33	26	15	20	58
	Tribe	Tribe	Tribe	Tribe	Tribe
Tribal lands subject to 85 percent conservation	0	0	0	0	1,470
x 0.85	0	0	0	0	1,249
x 0.15	0	0	0	0	221
acquired lands subject to 96.2 percent conservation	4,015	4,656	5,799	5,291	0
x 0.962	3,862	4,479	5,578	5,090	0
x 0.038	153	177	221	201	0
	Summary	Summary	Summary	Summary	Summary
total conservation	7,083 (97.44 %)	7,066 (97.21 %)	7,033 (96.75 %)	7,048 (96.96 %)	6,990 (96.16 %)
total potential development	186 (2.56 %)	203 (2.79 %)	236 (3.25 %)	221 (3.04 %)	279 (3.84 %)

As described in section 3.2.15.1 of this draft EIS, modeled habitat for Peninsular bighorn sheep, which is coincidental with essential bighorn sheep habitat in the project area, occurs on public lands in the following sections which are proposed for transfer from the BLM to the Tribe: sections 16, 17, 18, and 36, T.4S. R.4E.; and sections 5, 16, 21, 27, and 36, T.5S. R.4E. These public lands contain 4,178 acres of modeled/essential habitat, of which 731 acres in sections 16 and 17, T.4S. R.4E., and section 5, T.5S. R.4E., are designated as critical habitat. Hence, all but 1,621 acres of the selected public lands (5,799 acres) are modeled/essential habitat for bighorn sheep. The entirety of the offered Tribal lands in sections 7, 19, and 20, T.5S. R.5E., comprises modeled/essential habitat (1,470 acres). As displayed in Table 4.2.2.3, conservation of this habitat under all alternatives is high, ranging from about 95 percent under the no action alternative to almost 98 percent under scenario one of the proposed action. This level is consistent with overall conservation which ranges from about 96 to 97 percent (see Table 4.2.2.2).

Table 4.2.2.3 Conservation and potential development of modeled/essential Peninsular bighorn sheep habitat; selected public lands and offered Tribal lands only, in acres (5,648 acres total)

	Proposed Action <i>scenario 1</i>	Proposed Action <i>scenario 2</i>	Proposed Action <i>scenario 3</i>	Preferred Alternative	No Action Alternative
	BLM	BLM	BLM	BLM	BLM
PBS habitat on public lands retained	1,791	1,150	0	508	4,178
acquired PBS habitat	1,470	1,470	1,470	1,470	0
<i>total</i>	3,261	2,620	1,470	1,978	4,178
x 0.99	3,228	2,594	1,455	1,958	4,136
x 0.01	33	26	15	20	42
	Tribe	Tribe	Tribe	Tribe	Tribe
PBS habitat on Tribal lands subject to 85 percent conservation	0	0	0	0	1,470
x 0.85	0	0	0	0	1,249
x 0.15	0	0	0	0	221
acquired PBS habitat subject to 96.2 percent conservation	2,387	3,028	4,178	3,670	0
x 0.962	2,296	2,913	4,019	3,531	0
x 0.038	91	115	159	139	0
	Summary	Summary	Summary	Summary	Summary
total conservation	5,524 (97.80%)	5,507 (97.50%)	5,474 (96.92%)	5,489 (97.18%)	5,385 (95.34%)
total potential development	124 (2.20%)	141 (2.50%)	174 (3.08%)	159 (2.82%)	263 (4.66%)

PBS = Peninsular bighorn sheep

The 731 acres of designated critical habitat that may be acquired by the Tribe, depending on the outcome of the land value equalization process as described in chapter two, would remain as designated critical habitat under management of the Tribe. In accordance with the THCP, all Peninsular bighorn sheep critical habitat acquired by the Tribe would be within areas designated for 100 percent conservation. Since no designated critical habitat occurs on lands to be acquired by the BLM from the Tribe, no critical habitat would be conserved or potentially developed by the BLM after the exchange.⁵⁰ The exchange, therefore, would result in the avoidance of any potential adverse impacts to 731 acres of designated critical habitat.

⁵⁰ Lands acquired by the BLM from the Tribe would not automatically become designated critical habitat. Likewise, designated critical habitat acquired by the Tribe from the BLM would not automatically cease to be so designated. Such changes in designation are the responsibility of the U.S. Fish and Wildlife Service.

Effects of recreational activities on habitat

Non-consumptive human activity (e.g., recreational hiking) can seriously affect natural ecosystems. The level of impact is determined both by the intensity and extent of the activity, and by the specific type of impact on the habitat of concern. The impacts to habitats and to their values and functions from these activities fall into four general categories: destruction of habitat, fragmentation of habitat, simplification of habitat, and degradation of habitat. The nature of these impacts depends on the specific stress created by each activity. In most cases, a single activity will include several stressor processes that impact habitat. The major stressor processes affecting habitats include the following: vegetation removal, erosion, sedimentation and soil compaction, noise and visual disturbance, and introduced species. These stressor processes can result in the following effects on habitat: direct mortality of resident species, physiological stress and decreased reproduction, disruption of normal behavior and activities, segmentation of interbreeding populations, and modified species interactions and alien species invasion. Although all of the stressors affecting habitat can have serious impacts, physical alteration of habitat has eclipsed intentional and incidental taking as the major cause of population reduction among species. (EPA 1993)

To reiterate from previous discussions, however, changes in the extent and levels of trail-based recreational activities are not anticipated to occur as a result of implementing the proposed action, preferred alternative, or no action alternative. Nor are the extent and levels of off-trail recreational activities expected to change in a meaningful way as described above. From the perspective of habitat conservation, therefore, the proposed exchange of lands between the BLM and the Tribe is not anticipated to materially change the quantity or quality of habitat for Peninsular bighorn sheep.

Effects of climate change

Barrows and Murphy (2010) suggested that incremental shifts in temperature and precipitation will result in a gradual reduction in the extent of suitable habitat for bighorn sheep, and as the climate warms and precipitation declines, the lower and upper elevations of suitable habitat shift upwards. The pertinent question then is whether implementation of the proposed action or an alternative action would contribute to diminishment or upward shift of suitable habitat, thereby relegating Peninsular bighorn sheep to a narrowing band of habitat in the Santa Rosa and San Jacinto Mountains.

It should be evident by this point of the analysis that a change in ownership of the selected public lands and offered Tribal lands would have little, if any, effect on Peninsular bighorn sheep or their habitat, whether in a direct, indirect, or cumulative manner. Further, there is nothing to suggest that implementation of the proposed action, preferred alternative, or no action alternative would impair bighorn sheep use of potentially-shifting suitable habitat in the future due to climate change. Encroaching urbanization or fragmentation of habitat at higher elevations in San Jacinto Mountains, which are not currently occupied by bighorn sheep, is not anticipated due to a number of factors, principal among them being the rugged nature of the landscape which severely constrains development options. Higher elevations of the Santa Rosa Mountains in the project area already comprise suitable habitat for bighorn sheep, so upward shifts are not possible.

Summary

The proposed land exchange and alternatives are generally consistent with or exceed conservation goals of the BLM's governing land use plan and the Tribe's governing habitat conservation plan. Conservation of lands acquired by the BLM would likely occur at the 99 percent level or greater (as prescribed by the agency's land use plan), while conservation of lands acquired by the Tribe would occur at no less than the 96.2 percent level, which is greater than prescribed for lands currently subject to the THCP. Overall conservation of the combined BLM and Tribal lands in the project area would remain about the same (88 percent) under all alternatives. Conservation of the selected public lands and offered Tribal lands only would also remain about the same (ranging from 96 to 97 percent), regardless of the alternative selected. With respect to the conservation of modeled/essential bighorn sheep habitat, it would occur at the 95 to 98 percent level depending on the alternative considered. As a result, the ecological values of Peninsular bighorn sheep habitat, whether designated as critical or identified as modeled or essential, are largely protected. While conservation of Tribal lands may occur at a marginally lower level than conservation of BLM lands in the project area, "[t]he Agua Caliente Band of Cahuilla Indians has demonstrated its commitment to manage Peninsular bighorn sheep habitat in a manner consistent with the conservation of the [Distinct Population Segment]. The 2001 Tribal Conservation Strategy, other ongoing tribal resource management, and 2007 draft Tribal HCP, when final, have provided and will provide protection and management, in perpetuity, of lands that meet the definition of critical habitat for Peninsular bighorn sheep in [Peninsular bighorn sheep Recovery] Units 1 and 2A" (USFWS: 74 FR 17288, April 14, 2009).⁵¹

4.2.2.1.2 Least Bell's vireo (*Vireo bellii pusillus*): federally listed as endangered; listed by the State of California as endangered.

Southwestern willow flycatcher (*Empidonax traillii extimus*): federally listed as endangered; listed by the State of California as endangered.

For purposes of analysis, least Bells' vireo and southwestern willow flycatcher are combined in this subsection for the following reasons: (1) both birds occupy similar habitats, i.e., woodland areas along riverine systems that include southern California; (2) suitable breeding habitat for both birds occurs in the project area; (3) federal listings as endangered for both birds were due to the loss of habitat and nest parasitism by brown-headed cowbirds, which constitute continuing threats to both species; and (4) no designated critical habitat occurs for either bird in the project area, though modeled habitat for both birds is coincidental. See section 3.2.15.1 of this draft EIS for further discussion regarding listings, habitats, threats, and population trends for these birds.

Impacts to least Bell's vireo, southwestern willow flycatcher, and their habitats:

Of the total acreage potentially to be acquired by the Tribe from the BLM under scenario three of the proposed action (5,799 acres), 251 acres are identified as modeled habitat for least Bell's vireo and southwestern willow flycatcher. As a condition of the exchange in accordance with the THCP (ACBCI 2010), the Tribe would limit development potential to 3.8 percent of lands acquired from the BLM, though the location of such potential development is unknown at this time. Therefore, if 3.8 percent of lands allocated for development potential was to be evenly

⁵¹ The 2001 Tribal Conservation Strategy referenced in the Federal Register notice constituted an interim THCP; it was superseded in 2010 by the final THCP.

spread across all lands acquired by the Tribe, it is anticipated that development potential on the 251 acres of modeled habitat acquired by the Tribe would be about 10 acres, thereby committing approximately 241 acres to conservation for least Bell's vireo and southwestern willow flycatcher. Since no modeled habitat for these two species occurs on the lands to be acquired by the BLM from the Tribe, overall conservation and potential for development would occur only on Tribal lands after the exchange.

Therefore, conservation of modeled habitat for least Bell's vireo and southwestern willow flycatcher would be expected to be reduced by seven acres, from 248 acres managed for conservation by the BLM before the exchange (no action alternative)—which represents a 99 percent conservation commitment for these 251 acres of modeled habitat—to 241 acres managed for conservation by the Tribe after the exchange (scenario three of the proposed action). Concomitantly, the potential for development/disturbance would be expected to increase by seven acres, from a total of three acres allocated for disturbance by the BLM before the exchange to 10 acres allocated for development by the Tribe after the exchange. The reduction of conserved modeled habitat under the “intermediate alternatives”—i.e., scenarios one and two of the proposed action and the preferred alternative, the implementation of which would exchange fewer than 5,799 acres of the selected public lands for the offered Tribal lands—would be marginally different.⁵² However, these figures do not account for the Tribe's commitment (as expressed in the THCP) that no net loss of riparian areas and palm groves would be allowed; hence, conservation of modeled habitat for these two birds would be expected to occur at greater levels than described above.

Summary

Conservation of modeled habitat for least Bell's vireo and southwestern willow flycatcher—from 96.0 percent under scenario three of the proposed action to 98.8 percent under the no action alternative—is consistent with overall conservation of the selected public lands and offered Tribal lands under all alternatives, i.e., from 96.16 percent to 97.44 percent (see Table 4.2.2.2). Given this high level of conservation, and acknowledging conclusions of the U.S. Fish and Wildlife Service that overutilization of habitat for commercial, recreational, scientific, or educational purposes has not been identified as a threat to the vireo or flycatcher (USFWS 2006 and 2002a, respectively), adverse impacts to these birds are not anticipated as a consequence of implementing the proposed action, preferred alternative, or no action alternative. No impacts to designated critical habitat would occur since no such habitat for either species occurs in the project area.

4.2.2.1.3 Desert tortoise (*Gopherus agassizii*): federally listed as threatened; listed by the State of California as threatened.

Impacts to desert tortoise and its habitat:

Of the total acreage potentially to be acquired by the Tribe from the BLM under scenario three of the proposed action (5,799 acres), 2,564 acres are identified as modeled habitat for the desert tortoise; no designated critical habitat for the tortoise is located in the project area. The entirety of the offered Tribal lands (1,470 acres) is modeled as desert tortoise habitat. Although the number of desert tortoises in the Coachella Valley is low, isolated individuals or remnant low-density

⁵² Due to the small acreage differences for conservation and potential development between the alternatives, a table comparing them is not provided.

populations are found on the alluvial fans and canyon bottoms, washes, and slopes in the Santa Rosa Mountains and on the eastern side of the San Jacinto Mountains. (ACBCI 2010)

To reiterate, the Tribe would limit development potential to 3.8 percent of the lands acquired from the BLM as a condition of the exchange. If the 3.8 percent of lands allocated for development potential was to be evenly spread across all lands acquired by the Tribe, it would be anticipated that development potential on the 2,564 acres of modeled habitat acquired by the Tribe (under scenario three of the proposed action) would be 97 acres, thereby committing 2,467 acres to conservation. Given the 99:1 conservation/disturbance ratio that would be applicable to the 1,470 acres acquired by the BLM from the Tribe, all of which is modeled habitat for desert tortoise, 1,455 acres would be conserved while 15 acres would be subject to potential disturbance.

Therefore, conservation of modeled habitat for desert tortoise would increase by 135 acres, from 3,787 acres on the selected public lands and offered Tribal lands before the exchange (i.e., the no action alternative under which 85 percent of the offered Tribal lands would be conserved upon retention by the Tribe, not 96.2 percent) to 3,922 acres after the exchange (again, under scenario three of the proposed action whereby the Tribe would conserve 96.2 percent of the acquired public lands, not 85 percent). Concomitantly, the potential for development/disturbance would be reduced by 135 acres, from a total of 247 acres allocated for development by the BLM and the Tribe before the exchange (under the no action alternative), to a total of 112 acres allocated for development by both entities after the exchange (under scenario three of the proposed action).

Summary

It is anticipated that 3,922 acres, or 97.2 percent, of the total 4,034 acres of modeled desert tortoise habitat on the selected public lands and offered Tribal lands would be conserved under scenario three of the proposed action, while potential development would occur on 2.8 percent, or 112 acres, of modeled habitat. Under the no action alternative, 3,787 acres, or 93.9 percent, of modeled habitat would be conserved, thereby providing for potential development on 6.1 percent, or 247 acres. The extent of conserved modeled habitat under the “intermediate alternatives” would be marginally different than scenario three (see Table 4.2.2.4). This level of conservation of desert tortoise modeled habitat is generally consistent with overall conservation of the selected public lands and offered Tribal lands under all alternatives, i.e., from 96.16 percent to 97.44 percent (see Table 4.2.2.2). Given this high level of conservation, and acknowledging that loss and degradation of desert tortoise habitat can mostly be attributed to off-highway-vehicle use, overgrazing of domestic livestock, construction of roads and utility corridors, proliferation of exotic plant species, and higher frequencies of anthropogenic fire (USFWS 2010b), adverse impacts to desert tortoises are not anticipated as a consequence of implementing the proposed action, preferred alternative, or no action alternative. No impacts to designated critical habitat for the desert tortoise would occur since no such habitat occurs in the project area.

Table 4.2.2.4 Conservation and potential development of modeled desert tortoise habitat; selected public lands and offered Tribal lands only, in acres (4,034 acres total)

	Proposed Action scenario 1	Proposed Action scenario 2	Proposed Action scenario 3	Preferred Alternative	No Action Alternative
	BLM	BLM	BLM	BLM	BLM
DT habitat on public lands retained	1,632	1,096	0	454	2,564
acquired DT habitat	1,470	1,470	1,470	1,470	0
<i>total</i>	3,102	2,566	1,470	1,924	2,564
x 0.99	3,071	2,540	1,455	1,905	2,538
x 0.01	31	26	15	19	26
	Tribe	Tribe	Tribe	Tribe	Tribe
DT habitat on Tribal lands subject to 85 percent conservation	0	0	0	0	1,470
x 0.85	0	0	0	0	1,249
x 0.15	0	0	0	0	221
acquired DT habitat subject to 96.2 percent conservation	932	1,468	2,564	2,110	0
x 0.962	897	1,412	2,467	2,030	0
x 0.038	35	56	97	80	0
	Summary	Summary	Summary	Summary	Summary
total conservation	3,968 (98.36%)	3,952 (97.97%)	3,922 (97.22 %)	3,935 (97.55%)	3,787 (93.88 %)
total potential development	66 (1.64%)	82 (2.03%)	112 (2.78 %)	99 (2.45%)	247 (6.12 %)

DT = desert tortoise

4.2.2.1.4 Unavoidable adverse effects to threatened and endangered animal species

As previously indicated, 40 CFR § 1502.16 requires a discussion regarding any adverse environmental effects which cannot be avoided should the proposal be implemented. For purposes of this analysis with respect to the listed species herein addressed, there are no unavoidable adverse effects for the following reasons: (1) As essentially an administrative change in ownership, only minor changes in the predominant use of the selected public lands and offered Tribal lands—i.e., non-motorized, trail-based recreation—are anticipated as a consequence of the land exchange. These minor changes are not expected to adversely affect behaviors of the listed species or adversely affect their habitats. (2) No development other than a trail connecting the Garstin and Thielman Trails is foreseen, but such development would not be related to the land exchange. Hence, no developments that would adversely affect the listed species or their habitats are anticipated as a direct or indirect result of the land exchange.

4.2.2.1.5 Possible conflicts with other plans, policies, and controls for the affected area

With respect to the conservation of listed species and their habitats, potential conflicts would primarily emanate from inconsistencies between BLM and Tribal management of the selected public lands and offered Tribal lands upon exchange, and potential conflicts with the management of nonfederal and non-Tribal lands in accordance with the Coachella Valley Multiple Species Habitat Conservation Plan. Principally, these potential conflicts relate to the different levels of potential development allowed by the various jurisdictions in accordance with their respective land use plans.

As previously described, conservation of vegetative community types on public lands in the project area, whether retained by the BLM or acquired from the Tribe, occurs at the 99 percent level, thereby allowing for development on no more than one percent of these lands (BLM 2002a). Conservation of Tribal lands in the Mountains and Canyons Conservation Area occurs at the 85 percent level, thereby allowing for development on no more than 15 percent of these lands, except that all Peninsular bighorn sheep critical habitat acquired by the Tribe would be managed for 100 percent conservation, and no net loss of riparian areas and palm groves would be allowed. Upon acquisition of public lands through the proposed exchange, however, the Tribe would conserve these lands at the 96.2 percent level, thereby allowing for development on no more than 3.8 percent of them. (ACBCI 2010) In accordance with the CVMSHCP, the acres of disturbance or development authorized within designated conservation areas varies according to species. The plan would ensure the conservation of 97 percent (165,856 acres) of essential habitat for Peninsular bighorn sheep within the conservation areas, of which 78 percent (135,630 acres) is within existing conservation lands, defined as lands in public or private ownership (including BLM lands but excluding Tribal lands) managed for conservation and/or open space values that contribute to the conservation of species covered by the plan. For the least Bell's vireo, the CVMSHCP would ensure conservation of 96 percent (2,911 acres) of modeled breeding habitat within the conservation areas, of which 44 percent (1,629 acres) is within existing conservation lands. For the southwestern willow flycatcher, the plan would ensure conservation of 94 percent (2,563 acres) of modeled breeding habitat, of which 56 percent (1,526 acres) is within existing conservation lands. Finally, with respect to the desert tortoise, the CVMSHCP would ensure conservation of 97 percent (365,379 acres) of core habitat and 93 percent (126,431 acres) of other conserved habitat; approximately 67 percent (345,899 acres) of modeled habitat for the desert tortoise is within existing conservation lands.⁵³ Therefore, development could occur on up to three percent of essential bighorn sheep habitat, four and six percent of modeled breeding habitat for the least Bell's vireo and southwestern willow flycatcher, respectively, and three percent of core habitat for the desert tortoise. (CVAG 2007)

While there are differences by jurisdiction regarding how much land could be potentially developed in essential or modeled habitat for the listed species addressed in this draft EIS, these

⁵³ *Core habitat* is defined as areas identified in the CVMSHCP for a given species that are composed of a habitat patch or aggregation of habitat patches that (1) are of sufficient size to support a self-sustaining population of that species, (2) are not fragmented in a way to cause separation into isolated populations, (3) have functional essential ecological processes, and (4) have effective biological corridors and/or linkages to other habitats, where feasible, to allow gene flow among populations and to promote movement of large predators. *Other conserved habitat* is defined as part of a conservation area that does not contain core habitat for a given species, but which still has conservation value. These values may include essential ecological processes, biological corridors, linkages, buffering from edge effects, enhanced species persistence probability in proximate core habitat, genetic diversity, re-colonization potential, and flexibility in the event of long-term habitat change. (CVAG 2007)

differences are small, ranging from one to six percent, except as described above for Tribal lands in the Mountains and Canyons Conservation Area (though other restrictions would effectively reduce the 15 percent development allowance). Further, all jurisdictions would require specific measures for proposed projects to avoid, minimize, and mitigate impacts to bighorn sheep, riparian bird species, and desert tortoise, as applicable. Hence, potential inconsistencies of the proposed land exchange with approved state or local land use plans, policies, and controls for the area concerned are minor and require no reconciliation of the proposed action with such plans, policies, and controls.

4.2.2.1.6 Cumulative effects to threatened and endangered animal species

Conservation of natural resources has long been at the forefront of land management practices in the Santa Rosa and San Jacinto Mountains, starting with its earliest inhabitants, i.e., ancestors of the Agua Caliente Band of Cahuilla Indians who settled in the Coachella Valley centuries ago. These people's spiritual relationship with the land and their reliance on it to provide for their subsistence fostered a respect that translated into protection of resource values. This legacy of land stewardship is embodied today through conservation commitments made through the Tribe's habitat conservation plan; these commitments are described in detail throughout this draft EIS.

Though not yet considered in a time frame that spans centuries, the management of public lands similarly has conservation roots of an historical nature. Through the Federal Land Policy and Management Act of 1976 (FLPMA), the U.S. Congress directed the Secretary of the Interior to manage the public lands under the principles of multiple use and sustained yield in accordance with land use plans developed by the Secretary (FLPMA, section 302). In the same legislation, Congress established the California Desert Conservation Area, finding that the California desert contains historical, scenic, archaeological, environmental, biological, cultural, scientific, educational, recreational, and economic resources that are uniquely located adjacent to an area of large population; that the California desert environment is a total ecosystem that is extremely fragile, easily scarred, and slowly healed; that the California desert environment and its resources, including certain rare and endangered species of wildlife, plants, and fishes, and numerous archaeological and historic sites, are seriously threatened by air pollution, inadequate federal management authority, and pressures of increased use; and that the use of all California desert resources can and should be provided for in a multiple use and sustained yield management plan to conserve these resources for future generations, and to provide present and future use and enjoyment, particularly outdoor recreation uses (FLPMA, section 601).

The California Desert Conservation Area Plan Amendment for the Coachella Valley (BLM 2002), in amending the CDCA Plan of 1980, was prepared in partnership with local jurisdictions of the Coachella Valley, special interest groups, and state and federal agencies as an outcome of an agreement entered into by members of the California Biodiversity Council in 1991 to cooperate, communicate, and foster regional efforts to promote biodiversity conservation, and the 1996 memorandum of understanding that led to preparation of the Coachella Valley Multiple Species Habitat Conservation Plan, the overall goal of which is to enhance and maintain biological diversity and ecosystem processes while allowing future economic growth, thereby preserving a quality of life characterized by well-managed and well-planned growth integrated with an associated open-space system.

These plans—the BLM's CDCA Plan Amendment for the Coachella Valley, the Tribe's THPC, and the CVMSHCP—provide a local landscape-level approach to habitat conservation in the Santa Rosa and San Jacinto Mountains, thereby enhancing protection of Peninsular bighorn

sheep, least Bell's vireo, southwestern willow flycatcher, and desert tortoise. The proposed land exchange and alternatives support continued conservation of habitats for the affected listed species, essentially maintaining current conservation levels in the project area (see Tables 4.2.2.1 and 4.2.2.2). Meanwhile, acquisition of private lands within conservation areas designated by the CVMSHCP continues, further enhancing the protection of listed species.

It is important to acknowledge that development within listed species' habitats under the plans cited above is speculative (other than for the proposed trail connecting the Garstin and Thielman Trails). While *potential* exists for disturbance or development of essential, modeled, or designated critical habitat for Peninsular bighorn sheep, and modeled habitat for least Bell's vireo, southwestern willow flycatcher, and desert tortoise, the realization of this potential may not occur or may occur to a lesser extent than for which the plans allow. Many factors may constrain full realization of development potential, including terrain and other plan requirements.

Overview of cumulative effects to threatened and endangered animal species

Geographic scope of analysis:

Peninsular bighorn sheep. For purposes of this cumulative effects determination, the geographic scope of analysis as it relates to Peninsular bighorn sheep is defined by the boundaries of the San Jacinto Mountains recovery region and the northern Santa Rosa Mountains recovery region, within which occur essential habitat (which is coincident with modeled habitat) and designated critical habitat.⁵⁴ As described in section 3.2.15.1 of this draft EIS, public lands selected for the proposed land exchange contain 4,178 acres of essential habitat, of which 731 acres are designated as critical habitat. To put these figures in context, the two recovery regions at issue contain 89,472 acres of essential habitat (for all jurisdictions), within which are 12,364 acres of designated critical habitat.⁵⁵ Hence, the selected public lands comprise about five percent and six percent of essential habitat and designated critical habitat, respectively, in the two recovery regions.

⁵⁴ Whereas essential/modeled habitat spans all jurisdictions, designated critical habitat does not. In the San Jacinto Mountains recovery region, designated critical habitat occurs only on BLM, U.S. Forest Service, and private or CVMSHCP permittee lands; in the northern Santa Rosa Mountains recovery region, designated critical habitat occurs only on BLM and private or CVMSHCP permittee lands (USFWS: 74 FR 17288, April 14, 2009). No Tribal lands are designated as critical habitat.

⁵⁵ Peninsular bighorn sheep habitat extends from the San Jacinto Mountains through the Santa Rosa and other mountain ranges to the border with Mexico. Within these Peninsular Ranges are 376,938 acres of designated critical habitat (USFWS: 74 FR 17288, April 14, 2009); the acreage of essential habitat, however, is not identified. Essential habitat acreage herein described is based on calculations utilizing the essential habitat model developed for the Peninsular bighorn sheep recovery plan (USFWS 2000). Within the San Jacinto Mountains recovery region are 42,081 acres of essential habitat, within which are 4,597 acres of designated critical habitat. Within the northern Santa Rosa Mountains recovery region are 47,391 acres of essential habitat, within which are 7,767 acres of designated critical habitat. Note: Whereas all designated critical habitat in Critical Habitat Unit 1, as identified in 74 FR 17288, occurs within the San Jacinto Mountains recovery region, designated critical habitat in Critical Habitat Unit 2a occurs within the northern Santa Rosa Mountains, central Santa Rosa Mountains, southern Santa Rosa Mountains, and Coyote Canyon recovery regions within Riverside County. Acreage identified in 74 FR 17288 for Unit 2a, therefore, was recalculated in order to identify designated critical habitat in the northern Santa Rosa Mountains recovery region only.

Least Bell's vireo. Within the plan area for the CVMSHCP,⁵⁶ there are 3,675 acres of modeled breeding habitat and 56,643 acres of modeled migratory habitat for least Bell's vireo, totaling 60,318 acres of modeled habitat for this species (CVAG 2007).⁵⁷ Within the Santa Rosa and San Jacinto Mountains Conservation Area (SRSJMCA, established by the CVMSHCP)—which contains about 211,070 acres, including the selected public lands for the proposed land exchange—modeled breeding and migratory habitat occur on 1,579 acres and 3,958 acres, respectively (totaling 5,537 acres), or about 43 percent and seven percent (respectively) of such habitats in the overall CVMSHCP area (CVAG 2007); total modeled habitat for least Bell's vireo in the SRSJMCA, therefore, represents approximately nine percent of such habitat in the CVMSHCP area.

The selected public lands contain 251 acres of *potential* habitat for least Bell's vireo in riparian areas, though no breeding pairs were observed on these lands during annual surveys conducted between 2002 and 2005 (ACBCI 2010); hence, whether these lands support breeding is speculative. Conservatively speaking, assuming these 251 acres comprise potential breeding habitat, about 16 percent of modeled breeding habitat in the SRSJMCA may occur on the selected public lands. If these 251 acres comprise non-breeding habitat only, the selected public lands represent about six percent of potential migratory habitat for least Bell's vireo in the SRSJMCA. Within the Mountains and Canyons Conservation Area (MCCA, established by the THCP), an additional 1,151 acres of potential habitat (which may include breeding habitat) occurs on Tribal lands within the Agua Caliente Indian Reservation and Tribal lands outside the ACIR (720 acres and 431 acres, respectively) (ACBCI 2010). Therefore, the selected public lands contain about 18 percent (251 acres) of the potential habitat for least Bell's vireo in the MCCA (1,402 acres), or just under four percent of potential habitat for all jurisdictions combined in the SRSJMCA (6,688 acres, Tribal and non-Tribal).⁵⁸

Southwestern willow flycatcher. Within the plan area for the CVMSHCP, there are 2,730 acres of modeled breeding habitat and 57,589 acres of modeled migratory habitat for southwestern willow flycatcher, totaling 60,319 acres of modeled habitat for this species (CVAG 2007). Within the SRSJMCA, modeled breeding and migratory habitat occur on 1,574 acres and 3,963 acres, respectively (totaling 5,537 acres), or about 58 percent and seven percent (respectively) of such habitats in the overall CVMSHCP area (CVAG 2007); total modeled habitat for southwestern willow flycatcher in the SRSJMCA, therefore, represents approximately nine percent of such habitat in the CVMSHCP area.

⁵⁶ The plan area for the CVMSHCP encompasses approximately 1.2 million acres. Of this, about 69,000 acres are Indian reservation lands which are not included in the plan, leaving a total of approximately 1.1 million acres addressed by the plan. The CVMSHCP area generally extends westward to Cabazon, eastward just beyond the Orocopia Mountains, and is bounded on the north and south by San Bernardino and Imperial/San Diego Counties, respectively; the CVMSHCP area is located entirely within Riverside County (CVAG 2007).

⁵⁷ Breeding habitat and migratory habitat as described in the CVMSHCP are not overlapping (K. Barrows pers. comm.), e.g., 3,675 acres of modeled breeding habitat for least Bell's vireo in the CVMSHCP area is distinct from the species' 56,643 acres of modeled migratory habitat. Therefore, total least Bell's vireo habitat in the CVMSHCP area is 60,318 acres.

⁵⁸ The 251 acres of potential habitat on the selected public lands is included in the 5,537 acres of modeled breeding and migratory habitat (combined) in the SRSJMCA, which excludes 1,151 acres of potential habitat on Tribal lands in the MCCA.

The selected public lands contain 251 acres of *potential* habitat for southwestern willow flycatcher in riparian areas (coincident with potential habitat for least Bell's vireo), though none of these lands (as well as Tribal lands in the project area) comprise suitable breeding habitat for the species (ACBCI 2010). Conservatively speaking, assuming these 251 acres comprise potential breeding habitat (contrary to conclusions of the THCP), about 16 percent of modeled breeding habitat in the SRSJMCA may occur on the selected public lands. If these 251 acres comprise non-breeding habitat only, the selected public lands represent about six percent of potential migratory habitat for southwestern willow flycatcher in the SRSJMCA. Within the MCCA, an additional 1,151 acres of potential habitat (which may include breeding habitat coincident with that for least Bell's vireo) occurs on Tribal lands within the Agua Caliente Indian Reservation and Tribal lands outside the ACIR (ACBCI 2010). Therefore, the selected public lands contain about 18 percent (251 acres) of the potential habitat for southwestern willow flycatcher in the MCCA (1,402 acres), or just under four percent of potential habitat for all jurisdictions combined in the SRSJMCA (6,688 acres, Tribal and non-Tribal).

Desert tortoise. Within the plan area for the CVMSHCP, there are 571,098 acres of modeled habitat for desert tortoise, of which about 377,127 acres are identified as core habitat (CVAG 2007).⁵⁹ Within the SRSJMCA, modeled habitat occurs on 125,694 acres, or about 22 percent of all desert tortoise habitat in the CVMSHCP area; none of these acres comprises core habitat (CVAG 2007). The selected public lands contain 2,564 acres of modeled habitat for desert tortoise (ACBCI 2010), or about two percent of such habitat in the SRSJMCA and less than one half of one percent in the CVMSHCP area. Within the MCCA, an additional 11,717 acres of modeled habitat occurs on Tribal lands within the ACIR and Tribal lands outside the ACIR (8,312 acres and 3,405 acres, respectively) (ACBCI 2010). Therefore, the selected public lands contain about 18 percent (2,564 acres) of modeled habitat for desert tortoise in the MCCA (14,281 acres), or two percent of modeled habitat under all jurisdictions in the SRSJMCA (137,411 acres, Tribal and non-Tribal).

Temporal scope of analysis: The temporal scope of analysis for the four threatened and endangered species addressed in this draft EIS—Peninsular bighorn sheep, least Bell's vireo, southwestern willow flycatcher, and desert tortoise—is established by their dates of listing and recovery (or delisting). As described in section 3.2.15.1, these species were listed by the U.S. Fish and Wildlife Service as threatened or endangered on March 18, 1998; May 2, 1986; February 27, 1995; and April 2, 1990, respectively. None of these species, however, has been delisted. Therefore, the full extent of the temporal scope cannot be ascertained at this time as projected dates of delisting are unforeseen.

Past, present, and reasonably foreseeable future actions: The most notable past actions with respect to threatened and endangered species are those that may have contributed to their listings as threatened or endangered. Depending on the affected species, such actions—which include residential and commercial land development, landscaping of residential and commercial properties, motorized and non-motorized recreation, roadway construction and use, and grazing of domestic cattle and sheep—may have contributed to habitat loss, habitat fragmentation,

⁵⁹ *Core habitat* for a given species are composed of a habitat patch or aggregation of habitat patches that (1) are of sufficient size to support a self-sustaining population of that species, (2) are not fragmented in a way to cause separation into isolated populations, (3) have functional essential ecological processes, and (4) have effective biological corridors and/or linkages to other habitats, where feasible, to allow gene flow among populations and to promote movement of large predators (CVAG 2007).

disease, predation, exotic vegetation infestations, destructive wildland fires, and other potentially adverse circumstances, all which cumulatively affect wildlife. For example, recreation activities in the Coachella Valley are part of a cumulative set of factors affecting Peninsular bighorn sheep. Though cause and effect relationships have not been established, the proportionately larger population declines of bighorn sheep in the San Jacinto and northern Santa Rosa Mountains than elsewhere may be related, in part, to the relatively higher levels of human disturbance associated with the larger metropolitan area (USFWS 2000).

As previously indicated in this draft EIS, the only reasonably foreseeable actions on the selected public lands and offered Tribal lands is a potential trail connecting the Garstin and Thielman Trails upon which leashed dogs would be allowed, and a change in opportunities for cross-country, non-motorized recreation (e.g., hiking, mountain biking, and horseback riding). These could affect habitat use by Peninsular bighorn sheep (USFWS 2000), but would not likely impact least Bells' vireo, southwestern willow flycatcher, or desert tortoise given these species' relatively low occurrences on the exchange parcels. Also overutilization of least Bell's vireo and southwestern willow flycatcher habitat for recreational purposes is not identified as a threat to these species (USFWS 2006 and 2002a, respectively). Degradation of desert tortoise habitat emanates primarily from urbanization and other human-related activities such as OHV use, overgrazing of domestic livestock, and construction of roads and utility corridors, and secondarily from proliferation of exotic plant species and a higher frequency of anthropogenic fire (CVAG 2007). Non-motorized recreation, such as hiking, mountain biking, and horseback riding, are not identified as threats to desert tortoise.

From a landscape perspective, it is reasonably foreseeable that implementation of the CVMSHCP will enhance conservation for the four listed species as land continues to be acquired and managed for conservation purposes, and requirements to avoid, minimize, and mitigate impacts to covered species are applied for certain developments within the CVMSHCP reserve system (CVAG 2007).

Analysis of cumulative effects: To reiterate the previously-expressed characterization of the proposed land exchange, implementation of the proposed action or preferred alternative would result in an administrative change of landownership only. With respect to cumulative effects of the land exchange on threatened and endangered species and their habitats, this change of landownership is not anticipated to result in cumulative detrimental effects to the listed species or their habitats. Under all alternatives, conservation of habitats for Peninsular bighorn sheep, least Bell's vireo, southwestern willow flycatcher, and desert tortoise would be high: about 88 percent on the selected public lands, offered Tribal lands, and other Tribal lands within the external boundary of the Agua Caliente Indian Reservation (see Table 4.2.2.1), and 96-97 percent on the selected public lands and offered Tribal lands when considered by themselves (see Table 4.2.2.2). However, these figures do not account for the Tribe's commitment that no net loss of riparian areas—which constitute vireo and flycatcher habitat—and palm groves would be allowed (ACBCI 2010); hence, conservation of modeled habitat for these avian species would be expected to occur at greater levels. Continued acquisition of lands in the CVMSHCP Santa Rosa and San Jacinto Mountains Conservation Area for conservation purposes, and application of avoidance, minimization, and mitigation requirements for development within the SRSJMCA are anticipated to enhance conservation of habitat for the listed species.

Specific to Peninsular bighorn sheep—which is the only one of the four listed species herein addressed for which critical habitat has been designated in the project area—no changes to designated critical habitat would occur irrespective of the alternative selected. Critical habitat

remains as currently designated regardless of changes to landownership consequent to the proposed land exchange unless/until the U.S. Fish and Wildlife Service re-designates it (Roberts pers. comm.).

4.2.2.1.7 Conclusion regarding effects to threatened and endangered animal species

For reasons described above, implementation of the proposed action, preferred alternative, or no action alternative would not be likely to adversely affect Peninsular bighorn sheep, least Bell's vireo, southwestern willow flycatcher, or desert tortoise or designated critical habitat for Peninsular bighorn sheep, nor would implementation of the proposed action or an alternative action be likely to adversely affect their essential or modeled habitat.

4.2.2.2 ***BLM Sensitive Animal Species***

As indicated in section 3.2.15.2, the only designated BLM sensitive animal species that may occur on public lands selected for the proposed land exchange is the burrowing owl.

4.2.2.2.1 Burrowing owl (*Athene cunicularia*): BLM sensitive species; State of California species of special concern.

Impacts to burrowing owl and its habitat:

Of the total acreage potentially to be acquired by the Tribe from the BLM under scenario three of the proposed action (5,799 acres), 214 acres are identified in section 36, T.4S. R.4E., as modeled habitat for the burrowing owl (ACBCI 2010). As previously indicated, a condition of the exchange is that the Tribe would limit development potential to 3.8 percent of land acquired from the BLM, though the location of such potential development is unknown at this time. If 3.8 percent of lands allocated for development potential was to be evenly spread across section 36, it is anticipated that development potential on the 214 acres of modeled habitat acquired by the Tribe would be about eight acres, thereby committing approximately 206 acres to the conservation of burrowing owls. Since no modeled habitat for burrowing owls occurs on the lands to be acquired by the BLM from the Tribe, overall conservation and potential for development would occur only on Tribal lands after the exchange.

Therefore, conservation of modeled habitat for the burrowing owl would be expected to be reduced by about six acres, from 212 acres managed for conservation by the BLM before the exchange (no action alternative)—which represents a 99 percent conservation commitment for these 214 acres of modeled habitat—to 206 acres managed for conservation by the Tribe after the exchange (scenario three of the proposed action). Concomitantly, the potential for development/disturbance would be expected to increase by six acres, from a total of two acres allocated for disturbance by the BLM before the exchange to eight acres allocated for development by the Tribe after the exchange. With respect to conservation of modeled habitat for the burrowing owl, scenarios one and two of the proposed action and the preferred alternative are the same as the no action alternative since section 36 would be retained by the BLM under each of them. However, modeled habitat for the burrowing owl on public lands in section 36 occurs on steep terrain, located generally north of the Garstin and Berns Trails. Given the physiographic nature of these lands and the limited potential for development, conservation of modeled habitat would likely occur at higher levels, whether section 36 is acquired by the Tribe or retained by the BLM.

Summary

Conservation of modeled habitat for the burrowing owl—from 96.2 percent under scenario three of the proposed action to 99.0 percent under the no action alternative—is generally consistent with overall conservation of the selected public lands and offered Tribal lands under all alternatives, i.e., from 96.16 percent to 97.44 percent (see Table 4.2.2.2). Given this high level of conservation along with limited potential for habitat modification, adverse impacts to these owls are not anticipated as a consequence of implementing the proposed action, preferred alternative, or no action alternative.

4.2.2.2.2 Unavoidable adverse effects to BLM sensitive animal species

To reiterate from previous sections in this draft EIS, 40 CFR § 1502.16 requires a discussion regarding any adverse environmental effects which cannot be avoided should the proposal be implemented. For purposes of this analysis with respect to the burrowing owl—the only designated BLM sensitive animal species that may occur on public lands selected for the proposed land exchange—there are no unavoidable adverse effects for the following reasons: (1) As essentially an administrative change in ownership, only minor changes in the predominant use of the selected public lands and offered Tribal lands—i.e., non-motorized, trail-based recreation—are anticipated as a consequence of the land exchange. These minor changes are not expected to adversely affect behaviors of the burrowing owl or adversely affect its habitat. (2) No development other than a trail connecting the Garstin and Thielman Trails is foreseen. Although the northern terminus of this trail would be proximal to burrowing owl modeled habitat, such habitat is generally located north of the potential project area. Development of this trail, however, is not related to the land exchange. Hence, no developments that would adversely affect burrowing owls or their habitat are anticipated as a direct or indirect result of the land exchange.

4.2.2.2.3 Possible conflicts with other plans, policies, and controls for the affected area

With respect to the conservation of burrowing owls and their habitat, potential conflicts would primarily emanate from inconsistencies between BLM and Tribal management of the selected public lands and offered Tribal lands upon exchange, and potential conflicts with the management of nonfederal and non-Tribal lands in accordance with the Coachella Valley Multiple Species Habitat Conservation Plan. Principally, these potential conflicts relate to the different levels of potential development allowed by the various jurisdictions in accordance with their respective land use plans.

To reiterate from previous sections in this draft EIS, conservation of vegetative community types on public lands in the project area, whether retained by the BLM or acquired from the Tribe, occurs at the 99 percent level, thereby allowing for development on no more than one percent of these lands (BLM 2002a). Conservation of Tribal lands in the Mountains and Canyons Conservation Area occurs at the 85 percent level, thereby allowing for development on no more than 15 percent of these lands. Upon acquisition of public lands through the proposed exchange, however, the Tribe would conserve these lands at the 96.2 percent level, thereby allowing for development on no more than 3.8 percent of them. (ACBCI 2010) With respect to the CVMSHCP, a habitat distribution model for the burrowing owl was not developed—the planning team determined it would be of limited value—instead, the plan relies on known occurrences of owls for purposes of analyzing impacts consequent to implementation of the plan. However, no known burrowing owl sites were identified in the area of the proposed land exchange.

Nevertheless, the plan requires avoidance, minimization, and mitigation measures for burrowing owls that would limit impacts to this species. (CVAG 2007)⁶⁰

While there are differences by jurisdiction regarding how much land could be potentially developed in modeled habitat for the burrowing owl, these differences are small, ranging from one to 3.2 percent. Further, all jurisdictions would require specific measures for proposed projects to avoid, minimize, and mitigate impacts to the species. Hence, potential inconsistencies of the proposed land exchange with approved state or local land use plans, policies, and controls for the area concerned are minor and require no reconciliation of the proposed action with such plans, policies, and controls.

4.2.2.2.4 Cumulative effects to BLM sensitive animal species

Cumulative effects of the proposed land exchange and alternatives on burrowing owl and its habitat would only potentially occur under scenario three of the proposed action whereupon section 36, T.4S. R.4E.—the only exchange lands containing modeled habitat for the species, whether managed by the BLM or owned by the Tribe (ACBCI 2010)—could be acquired by the Tribe; under all other alternatives, section 36 would be retained by the BLM, i.e., current management of modeled burrowing owl habitat would not change. As described above, acquisition of section 36 by the Tribe would potentially reduce conservation of burrowing owl habitat by about three percent, from 212 acres managed for conservation by the BLM to 206 acres managed for conservation by the Tribe.

From the perspective of the broader CVMSHCP area, this cumulative effects analysis is limited because the planning team for the CVMSHCP determined that development of a habitat model for burrowing owl would be of limited value (hence, one was not developed), and no attempt was made to estimate population density—data on the number of individuals that could occur in the Coachella Valley are limited, and additional information on home range size and habitat requirements in desert environments is needed (CVAG 2007).

Therefore, it is unknown whether or to what extent scenario three of the proposed action would cumulatively affect the burrowing owl. While there is potential for conservation of this species' habitat to be reduced by about three percent relative to the selected public lands in section 36 under scenario three of the proposed action, it is not clear how this relates to overall conservation of the owl's habitat in the CVMSHCP plan area.

4.2.2.2.5 Conclusion regarding effects to BLM sensitive animal species

For reasons described above, implementation of the proposed action, preferred alternative, or no action alternative would not likely result in adverse effects to burrowing owls or their habitat.

⁶⁰ Modeled habitat for burrowing owls, as identified in Figure 17 of the THCP, extends into nonfederal and non-Tribal lands adjacent to public lands in section 36, T.4S. R.4E. (ACBCI 2010). Although the CVMSHCP did not identify any burrowing owl sites in the project area, nonfederal, non-Tribal lands within the Santa Rosa and San Jacinto Mountains Conservation Area are subject to provisions of the plan, including avoidance, minimization, and mitigation measures.

4.2.3 Impacts to Wild and Scenic Rivers

As described in section 3.2.20 of this draft EIS, the segment of Palm Canyon in section 36, T.5S. R.4E., was identified in BLM’s CDCA Plan Amendment for the Coachella Valley as eligible for designation as a Wild and Scenic River; no other public lands within the project area were determined as eligible for such designation. An 8.1-mile segment of Palm Canyon on National Forest System lands contiguous to and south of section 36 was designated as a Wild and Scenic River by the U.S. Congress through the Omnibus Public Land Management Act of 2009; however, the Act was silent with regard to the eligible segment on the adjacent public lands.

Eligibility of the Palm Canyon segment for designation as a Wild and Scenic River would continue under scenario one of the proposed action and the no action alternative whereupon section 36, T.5S. R.4E., would be retained by the BLM. Under Tribal jurisdiction, which would occur upon implementation of scenarios two or three of the proposed action or the preferred alternative, this segment of Palm Canyon would no longer be eligible for such designation. Eligibility for Wild and Scenic River designation by alternative is portrayed in Table 4.2.3.1 below.

Table 4.2.3.1 Eligibility for Wild and Scenic River designation, in miles

	Proposed Action scenario 1	Proposed Action scenario 2	Proposed Action scenario 3	Preferred Alternative	No Action Alternative
public lands	1.2	0.0	0.0	0.0	1.2
Tribal lands	0.0	0.0	0.0	0.0	0.0
<i>total</i>	1.2	0.0	0.0	0.0	1.2

Of primary concern is how the outstandingly remarkable values (ORVs) upon which the eligibility determination was based would be affected by implementation of the proposed land exchange or an alternative action. As described in section 3.2.20, the ORVs identified for the segment of Palm Canyon in section 36 are its free-flowing characteristic, habitat for federal and state listed endangered species and state species of special concern, archaeological sites significant in Cahuilla oral history, and the presence of a prehistoric trail.

Free-flowing characteristics:

Whether section 36 is retained by the BLM under scenario one of the proposed action or the no action alternative, or acquired by the Tribe under scenarios two or three of the proposed action or the preferred alternative, impoundments are not foreseen that would restrict the flow of intermittent waters. Whereas the BLM is statutorily obligated to maintain the eligible segment’s free-flowing characteristic while under its jurisdiction (BLM 2002a), the Tribe has made a commitment through its THCP that no net loss of riparian areas and palm groves would be allowed (ACBCI 2010), which effectively constrains any development that might affect water flows in Palm Canyon.

Habitat for federal and state listed endangered species and state species of special concern:

Effects of the proposed land exchange and alternatives on federal- and state-listed species and their habitats are described in section 4.2.2 of this draft EIS. It is concluded that implementation of the proposed action, preferred alternative, or no action alternative would not be likely to adversely affect Peninsular bighorn sheep, least Bell’s vireo, or southwestern willow flycatcher or designated critical habitat for these species, nor would implementation of the proposed action or

an alternative action be likely to adversely affect their essential or modeled habitat. The desert tortoise is not identified in the CDCA Plan Amendment for the Coachella Valley as one of the species comprising an outstandingly remarkable value for the eligible segment of Palm Canyon. Therefore, the outstandingly remarkable values related to habitat for federal and state listed species in section 36 would be protected under all alternatives.

Habitat for state species of special concern—summer tanager, yellow warbler, yellow-breasted chat, gray vireo, and southern yellow bat—would be protected by virtue of overall conservation of the selected public lands (including section 36) and the offered Tribal lands under all alternatives, that is, at the 96 to 97 percent level (see Table 4.2.2.2).

Archaeological sites / prehistoric trail:

As described in section 3.2.4 of this draft EIS, implementation of the Historic Properties Management Plan (Begay 2008), which was approved by the BLM, the State Historic Preservation Officer, and the Tribe, results in a determination of “no adverse effect” for the purposes of the proposed land exchange. Further, the proposed exchange and preferred alternative do not include proposals that would change current management of the selected public lands or offered Tribal lands, or result in modifications to the existing environment. Future actions proposed on the exchange lands would be addressed in accordance with federal and Tribal regulations or ordinances, as appropriate, and must conform to the applicable BLM and Tribal plans. The potential for impacts to archaeological sites or the prehistoric trail in section 36, therefore, is minimal, thereby protecting these outstandingly remarkable values.

4.2.3.1 Unavoidable adverse effects to eligibility

While the free-flowing characteristics, outstandingly remarkable values, archaeological sites, and prehistoric trail in section 36, T.5S. R.4E., would be protected upon implementation of the proposed action or an alternative action, its eligibility for designation as a Wild and Scenic River would only be maintained under scenario one of the proposed action and the no action alternative. Such eligibility would be extinguished under scenarios two and three of the proposed action and the preferred alternation upon acquisition of section 36 by the Tribe. However, the Tribe’s acquisition of section 36 does not suggest it would be managed inconsistent with requirements for a Wild and Scenic River. Rather, it is anticipated that Tribal management of section 36 would, in fact, be consistent with management of the adjoining 8.1-mile Palm Canyon Creek Wild and Scenic River on National Forest System lands, as described above.

4.2.3.2 Possible conflicts with other plans, policies, and controls for the affected area

Potential conflicts would primarily relate to eligibility of a segment of Palm Canyon in section 36, T.5S. R.4E., for designation as a Wild and Scenic River upon implementation of the proposed action, preferred alternative, and no action alternative. Under scenarios two and three of the proposed action and the preferred alternative, such eligibility would be extinguished, though as previously indicated, management of section 36 by the Tribe would protect the outstandingly remarkable values which established the segment’s eligibility under BLM jurisdiction. Under scenario one of the proposed action and the no action alternative, eligibility of section 36 as a Wild and Scenic River would be retained, though the Omnibus Public Land Management Act of 2009 does not provide for coordinated management of Palm Canyon that involves the BLM, instead directing the Secretary of Agriculture only to enter into an agreement with the Tribe. Nevertheless, the BLM would coordinate management of section 36 through its cooperative

agreement with the Tribe (BLM and ACBCI 1999a) and under its Service First agreement with the San Bernardino National Forest regarding management of the Santa Rosa and San Jacinto Mountains National Monument.

4.2.3.3 Cumulative effects to eligibility

By the 1950s, decades of damming, development, and diversion had taken their toll on the country's rivers. During the 1960s, the country began to recognize the damage being inflicted on wildlife, the landscape, drinking water, and its legacy. Recognition of this fact finally led to action by Congress to preserve the beauty and free-flowing nature of some of our most precious waterways.

Proposed by such environmental legends as John and Frank Craighead and Olaus Murie, and championed through Congress by the likes of Senators Frank Church and Walter Mondale, the National Wild and Scenic Rivers System was created by Congress in 1968 to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations.

Rivers in the National Wild and Scenic Rivers System capture the essence of all waterways that surge, ramble, gush, wander, and weave through the United States. From the remote rivers of Alaska, Idaho, and Oregon to rivers threading through the rural countryside of New Hampshire, Ohio, and Massachusetts, each preserves a part of the American story and heritage.

As of April 2012, the National System protects 12,598 miles of 203 rivers in 39 states and the Commonwealth of Puerto Rico; this is a little more than one-quarter of one percent of the nation's rivers. By comparison, more than 75,000 large dams across the country have modified at least 600,000 miles, or about 17 percent, of American rivers. (BLM et al. on-line posting)

Clearly, designation of the 1.2-mile segment of Palm Canyon in section 36, T.5S. R.4E., as a Wild and Scenic River would hardly be noticeable in context of the System as a whole, amounting to about 1/100th of one percent of total mileage. But the establishment of “systems” is generally cumulative, i.e., they grow by increments over time. Therefore, while 1.2 miles may be negligible, these miles would nevertheless enlarge the National Wild and Scenic Rivers System. Under scenarios two and three of the proposed action and the preferred alternative, opportunities to enlarge the System would be diminished. On the other hand, implementation of scenario one of the proposed action or the no action alternative would retain the possibility for further enlargement of the System through designation of the Palm Canyon segment in section 36 as a Wild and Scenic River, thereby expanding the existing Palm Creek Canyon National Wild and Scenic River from 8.1 miles in length to 9.3 miles, an increase of almost 15 percent.

4.2.3.4 Conclusion regarding effects to eligibility

As described above, implementation of scenarios two or three of the proposed action or the preferred alternative would extinguish eligibility of a segment of Palm Canyon in section 36, T.5S. R.4E., for designation as a Wild and Scenic River. On the other hand, implementation of scenario one of the proposed action or the no action alternative would preserve eligibility of this segment of Palm Canyon for designation as a Wild and Scenic River, though the realization of such status is wholly dependent upon Congressional action. Regardless of which alternative is ultimately approved, however, the outstandingly remarkable values which comprise the basis for the eligibility determination would be protected.

4.2.4 Impacts to Lands with Wilderness Characteristics

As described in section 3.2.21.1 and Appendix K, preliminary findings and conclusions for Wilderness Inventory Units CA-060-340A and CA-060-340B indicate they have wilderness characteristics—naturalness, outstanding opportunities for solitude, and outstanding opportunities for primitive and unconfined recreation—and are of sufficient size to make practicable their preservation and use in an unimpaired condition. As depicted in Figure 7a and described in Appendix L, implementation of scenarios one and two of the proposed action, as well as the preferred alternative, would increase the size of WIU 340A by about 78 percent, or from 5,033 acres under the no action alternative to 8,949 acres. Apparent naturalness of the added 3,916 acres in section 36, T.4S. R.4E., section 1, T.5S. R.4E., and sections 6, 7, 8, 18, 19, and 20, T.5S. R.5E., is essentially the same as for public lands comprising the no action alternative. Non-motorized trails on these additional lands—Araby, Berns, Dunn Road (trail), East Fork Loop, Garstin, Shannon, Thielman, and Wild Horse Trails—are sufficiently dispersed and topographically screened such that they and associated trail signs are substantially unnoticeable when the unit is considered as a whole. These same trails enhance opportunities for a primitive and unconfined type of recreation, but at the same time, do not degrade opportunities for solitude given topographic variation and (anecdotally-determined) low to moderate levels of use on most of the added lands.

Under scenario three of the proposed action, WIU 340A would increase to a lesser extent, or about 68 percent from 5,033 acres under the no action alternative to 8,441 acres (see Figure 7b). The difference is due to the Tribe's potential acquisition of section 36, T.4S. R.4E.—under scenarios two and three of the proposed action and the preferred alternative, the BLM would retain this section. While apparent naturalness of the 8,441-acre WIU would be essentially the same as for the 8,949-acre WIU, fewer trails would be incorporated in the smaller unit; segments of the Araby, Berns, Garstin, Shannon, Thielman, and Wild Horse Trails would be located on Tribal lands under scenario three of the proposed action. Nevertheless, opportunities for a primitive and unconfined type of recreation would be outstanding, as would opportunities for solitude.

WIU 340B would not be affected by the proposed land exchange since no public lands within it are contiguous with any of the selected public lands or offered Tribal lands; therefore, it would be comprised of about 4,655 acres under all alternatives, including the no action alternative (see Figure 7c).

4.2.4.1 Unavoidable adverse effects to lands with wilderness characteristics

No unavoidable adverse effects to lands with wilderness characteristics are anticipated as a consequence of implementing the proposed land exchange or alternatives. As previously indicated, the exchange is, in essence, an administrative action only; no proposals that would potentially alter the landscape are included in the proposed action or alternatives.

4.2.4.2 Possible conflicts with other plans, policies, and controls for the affected area

No conflicts with other plans, policies, and controls for the affected area are anticipated. The area's general lack of motorized-vehicle access by the public and the undeveloped nature of adjoining federal and nonfederal lands is reflected in planning decisions that promote retention and conservation of open space, principally the Coachella Valley Multiple Species Habitat

Conservation Plan that applies to nonpublic, non-Tribal lands; the Agua Caliente Band of Cahuilla Indians' Tribal Habitat Conservation Plan that affects lands under the Tribe's jurisdiction; the Land and Resource Management Plan for the San Bernardino National Forest that applies to National Forest System lands; and the California Code of Regulations as it applies to management of Magnesia Spring and Carrizo Canyon Ecological Reserves.

4.2.4.3 Cumulative effects to lands with wilderness characteristics

Consideration of cumulative effects to lands with wilderness characteristics begins with enactment of the Federal Land Policy and Management Act of 1976, which directed the Secretary of the Interior to review roadless areas of 5,000 acres or more and roadless islands of the public lands, identified during the inventory required by section 201(a) of the FLPMA as having wilderness characteristics, and “from time to time report to the President his recommendation as to the suitability or unsuitability of each such area or island for preservation as wilderness.”

As indicated in section 3.2.21.1 of this draft EIS, public lands in the project area for the proposed land exchange were inventoried between 1976 and 1979 for potential wilderness designation. As described in *California Desert Conservation Area Wilderness Inventory: Final Descriptive Narratives* (BLM 1979), “[Wilderness Inventory Unit No. 340] has a checkerboard land ownership pattern and, therefore, does not contain 5,000 acres of contiguous public land. In addition, the checkerboard tracts are not of sufficient size to make practicable their preservation and use in an unimpaired condition.”

Reiterating from section 3.2.21.1, land acquisitions since 1979 have increased the extent of public lands in the project area, thereby changing the pattern of checkerboard landownership such that the 1979 conclusion stemming from the 5,000-acre criterion is no longer applicable. Tracts of contiguous public lands in this area are now of sufficient size that an inventory and assessment of wilderness characteristics is appropriate. As described in Appendix K, the preliminary findings and conclusions indicate that Wilderness Inventory Units CA-060-340A and CA-060-340B have wilderness characteristics. Implementation of the proposed land exchange or preferred alternative would increase the size of WIU 340A. It can be reasonably anticipated that future acquisitions of contiguous lands by the BLM in this area will further increase the size of one or both of these units. Whether developments on or incompatible uses of contiguous nonfederal lands will occur, thereby creating the potential for direct or indirect adverse impacts to public lands with wilderness characteristics, is unknown, though such developments and uses may be constrained or limited by applicable plan decisions and land use allocations.

4.2.4.4 Conclusion regarding effects to lands with wilderness characteristics

Preliminary findings and conclusions indicate that both WIUs CA-060-340A and CA-060-340B have wilderness characteristics. As described above, implementation of the proposed action or preferred alternative would increase the size of WIU 340A. The addition of lands to WIU 340A resulting from the land exchange would not adversely affect its wilderness characteristics; WIU 340B would not be affected by the proposed action or preferred alternative.

4.3 **Mitigation Measures**

Mitigation measures are those measures that could reduce or avoid adverse impacts and have not been incorporated into the proposed action or an alternative action. If mitigation measures are incorporated into the proposed action and alternatives, they are called “design features,” not

mitigation measures. (BLM 2008a) Mitigation can include avoiding the impact altogether by not taking a certain action or parts of an action; minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and compensating for the impact by replacing or providing substitute resources or environments (40 CFR § 1508.20).

During the public scoping meetings conducted in March 2012, some members of the public proposed that an alternative excluding public lands in sections 16 and 36, T.4S. R.4E., from the proposed land exchange be addressed in the EIS to mitigate potential impacts to opportunities for non-motorized recreation. Concern was raised regarding the manner in which the Tribe would manage non-motorized trails in these sections, whether in the near or far term, and that decisions affecting public access to trails would be made without the public being afforded an opportunity to participate in the decision-making process. During these same public scoping meetings, some members of the public also proposed that an alternative be developed that includes mitigation in the form of reserved federal rights or interests for public access to the exchanged lands, specifically to ensure continued public access by hikers, mountain bikers, and horseback riders to non-motorized trails on the selected public lands.

These alternatives to mitigate potential adverse effects to opportunities for non-motorized recreation in the project area were considered but eliminated from detailed analysis—see section 2.5 of this draft EIS for further discussion in this regard—though the preferred alternative is partially responsive to the first suggestion in that section 36, T.4S. R.4E., would be excluded from the land exchange.

No other mitigation measures are deemed relevant, reasonable, or warranted based on analyses of impacts provided in sections 4.2.1, 4.2.2, 4.2.3, and 4.2.4. Except as regards eligibility of Palm Canyon in section 36, T.5S. R.4E., as a Wild and Scenic River, impacts to resources and their values are nil or minor.

4.4 Residual Impacts

Residual impacts are those that remain after the application of mitigation measures to the proposed action or alternatives. As no mitigation measures are deemed appropriate, no residual impacts would remain. Impacts resulting from implementation of the proposed action or an alternative action are fully described above.

4.5 Cumulative Effects

Cumulative effects are described separately for recreation resources (see section 4.2.1.7), threatened and endangered animal species (see section 4.2.2.1.6), BLM sensitive animal species (see section 4.2.2.2.4), Wild and Scenic Rivers (see section 4.2.3.3), and lands with wilderness characteristics (see section 4.2.4.3). It is not anticipated that cumulative effects of the proposed action, preferred alternative, and no action alternative would contribute to synergistic cumulative effects that may require analysis, i.e., affect other resources, such as air quality, areas of critical environmental concern, and others described in chapter three of this draft EIS. Further discussion here regarding cumulative effects, therefore, is not provided.

4.6 Irreversible or Irretrievable Commitments of Resources

As required by 40 CFR § 1502.16, this environmental document must include a discussion of any irreversible or irretrievable commitments of resources that would result from implementation of the proposed action or an alternative action. Irreversible effects primarily result from the use or destruction of a specific resource that cannot be replaced within a reasonable time frame. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the proposed action or preferred alternative. (CVAG 2007)

Land exchanges, by their nature, represent an irretrievable commitment of the resource base from a *managerial* perspective because once ownership of the selected and offered lands changes, the exchange cannot be undone; no longer would the entity with jurisdiction over certain lands before the exchange have management authority for these same lands after the exchange. With respect to the proposed land exchange between the BLM and the Agua Caliente Band of Cahuilla Indians, management of selected public lands acquired by the Tribe would no longer be subject to BLM control, and vice-versa with respect to the offered Tribal lands. But whether the proposed land exchange actually constitutes an irreversible or irretrievable commitment of resources largely depends on whether and to what extent development of the exchanged lands occurs and, as a result, specific resources are destroyed for a long period of time, or opportunities for non-motorized recreation are diminished or lost due to more restrictive management.

As described in this draft EIS: (a) conservation of the exchange lands occurs at a high level, i.e., 96 to 97 percent under all alternatives, thereby allowing no more than 3 to 4 percent of these public and Tribal lands overall to be developed (see Table 4.2.2.2); (b) development potential would be excluded from or limited on certain exchange lands, such as would occur on Tribal lands where no net loss of riparian areas and palm groves would be allowed, impacts to Peninsular bighorn sheep lambing and use areas would be avoided, 100 percent conservation of identified lambing areas would occur, a bighorn sheep movement corridor between the San Jacinto Mountains and Northern Santa Rosa Mountains would be maintained, and a 1/4-mile buffer around water sources would be established (ACBCI 2010); and (c) no development scenarios, except for a new connector trail between the Garstin and Thielman Trails, or changes in the management of recreation resources on the exchange lands are reasonably foreseen. Further, continued cooperation between the two jurisdictions in managing not only the exchange lands but the entirety of public and Tribal lands within the Monument—as established by *Cooperative Agreement Between the U.S. Department of the Interior—Bureau of Land Management and the Agua Caliente Band of Cahuilla Indians for the Santa Rosa and San Jacinto Mountains* (BLM and ACBCI 1999a)—fosters the protection of resource values.

Therefore, it is not reasonably foreseen that any irreversible or irretrievable commitment of resources will occur upon implementation of the proposed land exchange, preferred alternative, or no action alternative.